ILLINOIS

December, 1941

Medical Library

In This Issue

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Nasal Medication

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December, 1944

VOL. 86, NO. 6

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

WE ARE THNKING OF YOU

We are again approaching another Christmas Season, and before this appears in print the third year of the participation of the United States in World War II will have been finished. Naturally all of those remaining at home carrying on in their respective fields of endeavor, think of you who have been carrying on at the fighting fronts. Unlike the situation in previous wars, American soldiers and sailors are fighting for liberty and humanity in all quarters of this globe, and whether you, the medical officers who are working long hours each day to save human lives are in the European, Asiatic, far Northern areas, or on any of the high seas, we at home send our greetings and best wishes.

You medical officers are not working a 40 or 48 hour week, and your schedule does not call for time and a half, or double time for additional hours of service each week, yet you have done a job which has been a marvel of the age, through the use of modern therapy, surgical technic and transportation of the wounded quickly by air to base hospitals, after the primary care has been given near the place where the casualty developed. Your work has indeed been outstanding and whether you realize it or not, the American people as a whole are fully cognizant of your achievements, and they will never be forgotten.

All medical societies throughout the country are developing plans whereby they may be of the greatest possible service to you upon your return to civilian practice, and those of you who desire to return to your former locations, will find both your patients and confreres anxious to greet you and aid you in every way possible to become rehabilitated from military to civilian activities.

The Illinois Medical Journal has endeavored to give you in each issue, news of the state which we believe has been of interest to you, and in the selection of papers which have been published during the year which is about to end, we have given much consideration to your own interests. As rapidly as we received reports of change of address we have made the changes accordingly on our mailing lists, and have sent the Journal each month to every member of the Illinois State Medical Society who is in any branch of service. If any of you are not receiving your Journal, it is through no fault of ours, and we are anxious to get your correct address, and also a notice of any change of address as promptly as possible. We are also happy to receive letters from any of you when you have the time to write to us.

Likewise we are always anxious to receive papers from you which are approved by the proper Bureau of your branch of service, and we shall publish same as early as possible after they have been received.

Once more therefore, the Illinois State Medical Society and the Illinois Medical Journal ex-

tends to each of you the Season's Greetings and we wish to assure you that we will all be happy indeed, when we can welcome you home after the job you are now on, is completed.

PNEUMONIA TREATMENT

At a recent meeting of the Council of the Illinois State Medical Society, Dr. Roland R. Cross, Director of the Department of Public Health, presented for Council consideration a plan which entailed various changes in his Department.

One phase of his presentation dealt with the free distribution of anti-pneumococcic serum by the State Department of Public Health. The need for such serum has been almost entirely eliminated by the development of new sulfonamide compounds. The Department will, in the future, provide sulfathiazole and sulfadiazine for the treatment of pneumonia cases upon receipt of a request. Careful studies have proven that the treatment of pneumonia cases with the sulfonamides has as low a mortality rate as cases in which serum therapy has been used.

The Council believed that all physicians should be informed of the contemplated change in Department routine, and requested that a statement be prepared for distribution to the medical profession in Illinois. The following statement was furnished us by Dr. Jerome J. Sievers, Chief of Division of Communicable Diseases and Epidemiology of the Department of Public Health of Illinois. We will ask that you take special note of the fact that the Department will supply sulfathiazole and sulfadiazine from the Division of Communicable Diseases, from all full-time local health departments and from all approved pneumonia typing laboratories. It is believed that with an early diagnosis of pneumonia and early, as well as proper use of the sulfonamides, the mortality from pneumonia in Illinois will continue to be reduced in the coming years.

PNEUMONIA SERUM

"Effective January 1, 1945, the Illinois Department of Public Health will discontinue the free distribution of anti-pneumococcic serum.

"This action is being taken with the approval of the Pneumonia Advisory Council of the Department and the Council of the Illinois State Medical Society.

"At the time free distribution of anti-pneumococcic

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serum was begun by the Illinois Department of Public Health in 1937, no other specific form of therapy was available and the wide use of serum resulted in a marked decline in the case-fatality rate of pneumonia. Since then, however, the discovery and introduction of new sulfonamide compounds such as sulfathiazole and sulfadiazine has provided a simpler, and more economical therapeutic agent for this disease. Carefully controlled studies have shown that the treatment of pneumonia with sulfonamide drugs is equal, if not superior, to treatment with serum. The availability of penicillin for civilian use has provided an additional highly potent method of treatment where indicated.

"Sulfathiazole and Sulfadiazine for the treatment of pneumonia may be had on request from the Division of Communicable Diseases, all full-time local health departments, and all approved pneumonia typing laboratories."

THE ILLINOIS BLOOD PLASMA PLAN

Several months ago Dr. Roland R. Cross, Director, Illinois Department of Public Health announced through this Journal, the Illinois Blood Plasma Program which had been developed in order that a constant stock of plasma could be available in hospitals throughout the state, so that physicians wishing to give plasma to any patient regardless of ability to pay for same could have it readily available. Hospitals may apply for participation in the program, and they agree to abide by the rules of the plan. The State Health Department to start the plan will place, free of cost, a supply of plasma in the hospital sufficient to meet the expected demands of the institution. The hospital agrees to replace within one week, any of the plasma withdrawn to meet local needs. The replacement may be made in one of three ways.

First, the hospital may obtain plasma needed for replacement from any laboratory licensed by the National Institute of Health.

Second, the hospital may obtain blood from local donors sufficient to yield plasma equivalent to the amount used. This blood is to be shipped prepaid to the Samuel Deutsch Serum Center in Chicago where it will be processed at a cost to the hospital of $7.50 per unit, and the plasma is returned to the hospital at no additional cost other than that for its transportation.

Third, the hospital may procure from local donors an amount of blood to yield twice the amount of plasma needed for replacement. Through this plan, the hospital assumes no expense for the processing, as the Serum Center retains one half of the plasma for compensation.

Participating hospitals are required to purchase the necessary shipping and blood transportation equipment and to set up the machinery for the local operation of the plan. The State Department of Public Health provides the initial stock of plasma and detailed instructions as to administration technic, storage, preparation of administration equipment, qualification of blood donors and methods of blood collection. Consultation service will be provided if desired.

There are several advantages of this plan, such as it decentralizes the work and cost of making plasma available at all times in every part of the state; it provides a self perpetuating stock of plasma in every participating hospital; it establishes a strong motive to the relatives and friends of a patient who may need plasma to voluntarily donate blood for replacement, and the cost of having plasma available for all patients, is reduced to a minimum. There are quite a number of hospitals which have been approved and are now using the plan most satisfactorily, while others no doubt will adopt it and meet the requirements within a short time. Plasma is being used more often today than ever before and it is one of the most important additions to therapy in many years, its use not merely being indicated in the treatment of intense shock, following loss of blood, and during and following serious operations. In many cases its use is indicated before the more serious manifestations of the disease or injury have developed. Plasma today is used extensively in obstetrical practice, in many medical and surgical conditions, and following trauma. Likewise in the early treatment of burns it is of the utmost importance. Millions of units of plasma have been sent for use in caring for the armed forces on all fronts, and quite recently in addition to the supplying of plasma, hundreds of pints of whole blood are being transported by air each day, to our fighting forces especially in the European theater of war.

It seems quite logical to believe that within a relatively short period of time, every well equipped hospital in Illinois will have the Illinois Blood Plasma Program in operation, and use it freely in the effort to reduce mortality and morbidity rates throughout the state. The Illinois Director and his associates are indeed to be

congratulated for taking this step to make plasma available for the benefit of any patient regardless of their economic status.

TUMOR DIAGNOSTIC SERVICES AVAILABLE

R. V. Brokaw, M.D.

A tumor diagnostic service to be conducted under the joint auspices of the University of Illinois College of Medicine and the Division of Cancer Control of the State Department of Public Health has recently been inaugurated at the Research and Educational Hospital, Chicago.

The operation of this service under these joint auspices provides for an augmentation of the facilities offered by the Tumor Clinic of the Medical College which has been conducted for some time under the direct supervision of Danely P. Slaughter, M.D., Assistant Professor of Surgery. The activities of the Division of Cancer Control of the State Health Department are under the direction of Raymond V. Brokaw, M.D., Chief.

These facilities are available to all practicing physicians throughout the State as a consultation service in the care of their suspected cancer cases. Patients who can afford to pay will be diagnosed and returned to their referring physician with recommendations for treatment.

Medically indigent patients who are approved by the Social Welfare Department of the Hospital will be treated without charge in accordance with the customary policy.

Tumor clinic sessions are held on Tuesdays, Wednesdays and Fridays from 2 to 5 P.M. Ambulant patients will be admitted to the clinic on any of the days mentioned; but cases requiring hospital care will be received only by previous arrangement, and to the extent of available facilities.

Additional tumor diagnostic services now operated under the auspices of the Division of Cancer Control are located at St. Anthony's Hospital, Rockford; Burnham City Hospital, Champaign; and Memorial Hospital, Springfield.

At all of the above named services specimens of suspected tumor tissue from medically indigent patients which may be submitted by physicians from any part of the State are accepted for microscopic examinations and diagnosis without charge. Suitable containers for mailing such specimens are available upon request.

Further information regarding these facilities may be obtained by addressing the Division of Cancer Control 505 South 5th Street, Champaign, or the director of any of the services named.

COMES THE NIGHT AND THE DAWN

(Senility or Human Exodus)

I have witnessed the following dramatic picture of sudden and surly death, time after time, with minor changes in the setting. It seems to me humanity should meet its supreme test more serenely and more philosophically.

Thirty years devoted to the study of illness, disease and death, and the past twenty years to an analytical survey of cardiology, particularly in progressively older people, leaves me with the definite impression that the older the human race grows the more querulous and if you will, more selfish and unappreciative we humans are as we approach Death.

After all if we *drift* as infants and children, and *fight* in our prime, and again *drift* in our senility, through eight or nine decades, why should we not be reconciled to discomfiture, ailments, impairments of function, and the Grand Adventure, Death Itself?

Robert S. Berghoff, M.D.
President-Elect Illinois State Medical Society

There he sat in his chair in the window, the old, the very old man of ninety-one winters. He was decrepit, emaciated, bent, ossified, his old shoulders supported with pillows. His chair faced the glaring noonday sun which threw into bold relief his peaked face with skin like parchment and furrowed as a crocodile's. A wisp of straggling white hair lopped over bleary and teary eyes, the last leaf on a withered tree. Seventy pounds of dehydrated flesh clinging to a gaunt frame! I had appraised him slowly and methodically and it occurred to me how dulled his senses must be not to detect my presence. Now I approached him diffidently, for the parted lips which methodically retrieved a loose and wobbly upper denture also served, when in repose, to create a sullen, sneering and uninviting picture. However, gathering courage, and in a loud and cheerful strain, I hailed him. "Good day to you, Sir, and a good day it is."

After an interminable pause in a querulous and cackling falsetto came his rejoinder. "The

sun is setting and it is growing dark, but then for a long time it's been dark. Would that *my* sun would set. Why can't I die? It's been a good day, eh? A good day for what? The days and nights are as one to me. Why can't I die?"

I mused, "So this is God's handiwork, this is Man!" And as I glanced at this human derelict, all of his faculties waning, I sensed it all. Not merely a hulk of dying higher form of animal life, with eyes, ears, hands, extremities, heart, soul and brain all through—gone—irretrievably gone, but a very old human being who used and thoroughly enjoyed his faculties over and beyond his allotted span. Now he was utterly weary and alone. Unfortunately, unlike the lower forms of animal life, he possessed a brain, arteriosclerotic it is true, yet functioning nevertheless, and because of it he was cursed with the inclination "analytical and deductive."

"A good day?" he groaned. "'Tis night! Or have my eyes completely closed? Black, dark as night, and so it has been for me this long, long time. I am a blind, weary old man. Why can't I die?"

And then again the import of his meaning struck me, the complete and futile picture. Truly he was a senile, decrepit old man, with ripened and hardened cataracts blinding him, and his tear-dimmed eyes were droplets of water, the overflow of stenosed tear ducts, not tears the product of sentiment, for sentiment demands a soft heart, and his seemed one of stone. My own heart surged within me as I began: "You ungrateful, unappreciative old man! Why can't you die? Why won't your sun set? You are blind — all is night to you? Ah, but listen to me! What glories have your eyes beheld? And by what intrinsic right did you merit them? Or have you forgotten your wide range of vision in the long life gone by? Shall I recount them for you? The light of love in your dear mother's countenance as she held you to her bosom. The look of adoration from your bride as you placed the ring upon her finger. Your babies — one — two — three — four — and their pride when they brought their childish possessions to your knee. And then your grandchildren, your own flesh and blood reincarnated. And in between, the years of your maturity — your active, virile life — years of accomplishment, years of travel. In the past you were wont to recount them to me — the wondrous sights your eyes beheld: sunrise on Mount Everest, the grandeur of the Taj Mahal, Europe, Rome, the Vatican, the Galleries. All these and more have your eyes feasted upon. Count your blessings, Sir, I beg of you!"

"Why can't I die? You taunt me with your whispering nonsense about days gone by. Or *are* you whispering? Shouting more than likely so that my deaf old ears may be cajoled into accepting an occasional overtone. Yes, that's it — a blind and deaf old man. Why can't I die?

Again I say to you, "Shame, shame on you, old man, for in one breath forgetting and ignoring all the wonders your ears have brought you and demanding perpetuity. Have you not heard infants coo and children prattle? You have listened to the spicy admixture of words of praise, of gratitude and perhaps of condemnation. The glories of the operas, the enchantment of symphonies and the stir of martial music — all these have been yours to enjoy throughout a long lifetime. Count your blessings, Sir!"

"Stop! I hold no brief for the past. My years were long and full — aye, friendly too. It's the present, the everlasting *Now,* I hate. Blind, deaf, and my voice once strong and vibrant now a quivering female falsetto. Why can't I die?"

"Not quite so bitter are you, Sir? Perhaps because you remember the voice you were blessed with. A voice that thanked and soothed and prayed. A voice that commanded men — full of power, determination, authority, and yet tender in love and consolation. A voice that rang out a deep baritone and swayed hearts and souls. It was yours for years and years and you used it well — but not forever. Count your blessings, Sir!"

The stern old jaw relaxed and the furrowed brow became a bit smoother, but just for an instant, and then the sinister mask reappeared.

"Blind, deaf, the voice of a hag, and my memory — where is it? Amazing how crystal clear my childhood is and my youth and my long and active life; but where is the recent past, where is *Now?* Why can't I remember yesterday, last week, last month, last year and the year before? All a haze, a maze, a per-

plexing, disturbing, annoying *Now*. It would be just as well if I were dead! Nature is Cruel!"

"Once again, Sir, I say 'Count your blessings.' Your premise 'Nature is Cruel' is wrong. Nature is kind and generous — amazingly so in the aphasia inflicted upon senility. Look at it this way, Sir. Consider your long and eventful life as a single day. Let your childhood resemble the dawn; your youth, a calm and peaceful morning; your maturity, high noon; and your later years, the waning of the day blending imperceptibly with eventide, just as your senility has gradually and slowly descended upon you. With that comparison in mind reflect upon that paradoxical change Nature has wrought with your memory and why. She allows you a crystal clear and vivid mental picture of your childhood with its innocent, carefree, homely joys, to play and toy with at your will. With no effort, even at your advanced age, you can unwind the spool of time and, leisurely or quickly, follow your steps to school, at play or where you will. Not a detail escapes that queer, intriguing old memory of yours. With no additional effort you can carry on into your youth and into your maturity. Your youth with its joys, its loves, its battles, its triumphs, disappointments and its minor sorrows. Your maturity, too, remains an open book. You see yourself again rearing a family of stout and brave sons and comely, good daughters, the mothers of your grandchildren. You note again how staunch and strong and well you have built and fashioned this earthly house of yours, and it brings you inner satisfaction. You breathe a sigh of contentment and you have the conviction that you could not build it better, even now fortified with all your additional experience. And now, Sir, your day's drawing to a close, the sun dips behind some gathering clouds, shadows fall, evening comes, and Nature with her magic wand throws a veil over your memory and blots out your yesterday — your *Now* — and you complain? I'll give you, Sir, what Nature refuses — a hurried glimpse at your recent and faded past. Your last few years have been kind — kind to you and to those you love. You are alone only because you wished it so. Sons and daughters, grandchildren, friends whom you befriended — all yearn to enfold you in their embrace. To one and all you are a father, grandfather, friend, sage and philosopher, one set aside to be loved and respected, one whose passing will leave an irreparable void."

By Jove, I've done it! Here comes his smile at last, a big, broad smile of utter peace and contentment. It lights that creased old face and makes it good and kind and ecstatic. But wait! That smile is stiff, it's frozen — it's his last. Comes the Dawn — His Dawn! He is dead!

SECOND ANNUAL CLINICAL CONFERENCE SPONSORED BY CHICAGO MEDICAL SOCIETY

The tremendous success of the First Clinical Conference has served as a mandate to the Chicago Medical Society for the annual continuation of this type of program. Acting in accord, the Council of the Society has approved and is sponsoring the Second Annual Clinical Conference, February 27, 28 and March 1 at the Palmer House in Chicago. Attendance at this Conference is open, not only to members of the Chicago Medical Society, but to all interested members of the medical profession.

The program of these three intensive postgraduate days will be replete with interesting civilian and military medical subjects, to be presented by outstanding clinicians from all sections of the United States.

The daily scientific programs will consist of half hour lectures and clinics, beginning at 8:00 A. M. and continuing through until 5:00 o'clock, with suitable intermissions for inspection of the technical and scientific exhibits. At least three timely and interesting panel discussions will be included in the program.

A very interesting scientific session has been arranged for Tuesday evening. Wednesday evening will be devoted to the Annual Banquet with suitable entertainment and a prominent guest speaker, one with a message of vital concern to all.

The registration fee of five dollars will cover full attendance at all sessions, except the Annual Banquet.

Travel and hotel arrangement difficulties can be avoided by MAKING YOUR RESERVATION *NOW*.

Chicago and your host, the Chicago Medical Society, extend you a hearty welcome.

Medicine's Role in the War Effort

ARMY MEDICAL DEPARTMENT DISCONTINUES RECRUITMENT OF CIVILIAN PHYSICIANS

Paul V. McNutt, chairman of the War Manpower Commission, announces that he has been informed by the War Department that recruitment of civilian physicians for the Army has been discontinued. At the same time he announces that recruitment for the Navy must continue, since it has urgent need for approximately 3,000 additional medical officers. The U. S. Public Health Service and the Veterans Administration are also continuing to recruit physicians, Mr. McNutt said.

Vice Admiral Ross T. McIntire, chief of the Bureau of Medicine and Surgery, U. S. Navy, informed Mr. McNutt that personnel expansion and intensification of operations in the Pacific have precipitated a grave shortage of medical officers.

"With less than 13,000 medical officers on active duty in the Navy, the procurement of at least 3,000 more as soon as possible is imperative," said Admiral McIntire. "Even this figure will not meet actual needs but would ease the emergency that now exists; physicians and surgeons whose availability has been or may hereafter be certified by the Procurement and Assignment Service, WMC, should lose no time in obtaining particulars for commissions in the Navy Medical Corps by communicating with their nearest office of Naval Officer Procurement."

Mr. McNutt said he had been informed that the Army will fill its future requirements for military physicians from sources now available to the Army and thereafter will not require certification of availability of additional physicians from the Procurement and Assignment Service of the War Manpower Commission. There are now about 47,500 physicans on duty as medical corps officers of the Army. This probably includes those serving with the Veterans Administration and other governmental agencies to which the Army Medical Corps assigns its medical corps officers.

Mr. McNutt said that there are at present roughly 60,000 physicians in the armed forces and the Veterans Administration. The total number of physicians in the armed forces represents approximately 40 per cent of the active medical profession of the United States.

In addition to the 3,000 medical officers needed at present by the Navy, the Public Health Service has need for approximately 300 for the U. S. Coast Guard and other agencies.

In informing Mr. McNutt of the termination of the Army recruiting of physicians except for the occasional specialist, Major Gen. Norman T. Kirk, Surgeon General of the Army, said, "The large number of physicians now in the Army volunteered for commissions without regard for their personal interests. The U. S. Army Medical Department is appreciative of the fine service they have given. Their removal from their usual practice also represents a sacrifice on the part of all civilians, who have had to get along with less medical care than they obtained in peacetime."

The Veterans Administration has, and will continue throughout the duration of the war emergency to have, assigned to it medical officers in the Army and the U. S. Naval Reserve to care for the needs of the casualties in its charge, the War Manpower Commission said. Doctors whose applications are at present in process for appointment in the Army Medical Corps will be considered for appointment and assignment to duty with the Veterans Administration, the War Manpower Commission Statement added.

Mr. McNutt said that the War Manpower Commission joins with the directing board of its Procurement and Assignment Service and the War Department and the Office of the Surgeon General in expressing appreciation of the sacrifice involved in cooperation that was necessary on the part of physicians and the public before the Army reached its present level of medical personnel.

Mr. McNutt also expressed the hope that additional civilian physicians will respond to the Navy's appeal for more doctors to apply for commissions. The needs of the U. S. Public Health Service and the Veterans Administration, he said, although much smaller than those of the Navy, are nevertheless important.

NAVY NEEDS 3,000 DOCTORS

Vice Admiral McIntire, who is chief of the Bureau of Medicine and Surgery, stated recently that 3,000 more physicians will be required by the Navy because personnel expansion and intensification of Naval operations in the Pacific area has precipitated a grave shortage of medical officers. Admiral McIntire told Mr. Paul V. McNutt, chairman of the War Manpower Commission, that "with less than 13,000 medical officers on active duty in the Navy the procurement of at least 3,000 more as soon as possible is imperative."

The Army will fill its future requirements for military physicians from sources now available and therefore will not require future certification of availability of additional physicians from the Procurement and Assignment Service of the War Manpower Commission.

☆ ☆

LEGION OF MERIT AWARD TO CAPTAIN KENNETH F. STOTZ

The Legion of Merit award was recently presented to Capt. Kenneth F. Stotz, formerly of Chicago. The citation accompanying the award read "For exceptionally meritorious conduct in the performance of outstanding services in the South Pacific Area from March 1942 to May 1944. At New Caledonia Capt. Stotz's unit was assigned to a 100 mile sector and, despite poor roads, he administered efficiently at the aid stations throughout the sector. During the unit's participation in the Guadalcanal campaign he frequently operated aid stations within 25 yards of the front lines and at the cessation of hostilities on that island he set up two small hospitals. An outstanding evacuation system was instituted and maintained by his unit during the Bougainville campaign. Displaying courage and devotion to duty, Captain Stotz performed a major operation under heavy enemy fire, thereby saving the life of a casualty. His foresight and executive and administrative ability contributed in a great measure to his unit's successful operation." Dr. Stotz graduated from Northwestern University Medical School, Chicago, in 1934 and entered the service June 3, 1941.

☆ ☆

TRENCH FOOT

The War Department recently issued a change in regulations governing treatment for trench foot from that given in the Technical Bulletin of Medicine No. 81, issued August 4, as follows:

Treatment. b. Definitive treatment. (1) Patients should be kept in bed, with the affected parts on a horizontal level with or elevated on pillows only slightly above heart level, and protected from external pressure either by complete exposure or by means of a cradle. Elevation of the extremities should be done only if there is no evidence of inadequate circulation, that is, incipient gangrene; otherwise they should be maintained on a horizontal level. The period of bed rest is determined by degree and rate of subsidence of edema for this form of treatment.

NAVY NEEDS MORE NURSES

A total of 4,000 more nurses are urgently needed by the Navy by June 30, 1945, to maintain the strength of the Navy Nurse Corps at the desired level. With a present strength of 8,700 women in the Nurse Corps, at least 2,000 new recruits are being sought before the end of December 1944 in order to keep pace with the nursing requirements of the still expanding Navy while taking into account separations from the corps.

The Nurse Corps is scheduled to provide three nurses for every thousand men and women in the naval services. This means that the net strength of the Nurse Corps should be approximately 11,500 by next June.

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SERVICE CHIEFS ASK FOR INCREASED BLOOD DONATIONS

An appeal for increased blood donations was made here by Vice Admiral Ross T. McIntire, Surgeon General of the Navy, and Major Gen. Norman T. Kirk, Surgeon General of the Army. Increasing casualties in both Europe and the South Pacific are necessitating air shipments of whole blood to both battle fronts. The service chiefs have pointed out that among those who have given blood are a number of men in service who themselves have faced death and suffered wounds. Many World War I veterans, they added, have been consistent blood donors. Whole blood is shipped daily from Washington and New York to Europe, and regular shipments go from the West Coast to the South Pacific. A new method had to be devised to keep blood fresh on its long journey via Naval Air Transport Service from San Francisco to Pearl Harbor and then to island bases.

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NONCOMBAT DUTY TO SOLE SURVIVING SON IF TWO OR MORE BROTHERS HAVE BEEN KILLED

In recognition of the sacrifice and contribution made by a family which has lost two or more sons and has only one surviving, the War Department has approved a policy of returning to or retaining in the continental United States the sole surviving son of a family in cases in which two or more sons have been lost, except when the surviving son is engaged in nonhazardous duty overseas.

Sympatheic consideration will be given to every application in cases of families who have lost two or more sons and have only one surviving for return of the survivor to this country for duty here or for discharge from the Army, if the circumstances warrant. However, each case will be decided on its individual merits. In all cases of extreme hardship arising from family circumstances the Army has in the past cooperated to provide relief from active duty or discharge if the complaint has been found to have merit on investigation. The plan of removing men from the hazards of combat activity is an extension of this policy.

PRISONERS OF WAR SERVICES

Through the cooperation of the American Red Cross, special optical, dental and orthopedic services are being provided for American prisoners of war. The American Red Cross reports that in all European prisoner camps the detaining power provides eye examination service. Prescriptions prepared by the camp optometrist are sent to Geneva, where a large pool of lenses has been established. When Geneva cannot fill the prescription it is filled elsewhere in Switzerland.

It was also reported that each camp usually has its own dentists: a German, American or another Allied dentist who is a prisoner. To meet shortages, dental supplies valued at about $12,000 have been shipped to the International Committee of the Red Cross. When special dental treatment is needed it is paid for out of a revolving fund.

Temporary replacements are provided by their captors for prisoners who have lost a leg or an arm. The British and American Red Cross societies follow through by providing the best permanent mechanical limbs as soon as possible. To accomplish this a Swiss orthopedic mission visits all camps and measures the the prisoners for artificial limbs. These are constructed in Switzerland for American prisoners at the expense of the American Red Cross.

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NEUROPSYCHIATRY FOR GENERAL MEDICAL OFFICER

According to the Technical Bulletin of Medicine No. 94, issued by the War Department recently, every medical officer, regardless of his mission, whether battalion surgeon, ward officer, flight surgeon or dispensary physician, is confronted with psychiatric problems. There is an inadequate number of psychiatrists, and, furthermore, not only must the average medical officer do most of the minor psychiatry in the Army, but in some instances he may also be forced by circumstances to do major psychiatry. Pychiatric treatment, like surgical treatment, is most effective when carried out early, promptly and skillfully. Consequently, some of the best psychiatry will be done outside the hospital in such places as the dispensary, the consultation service, the battalion aid station, the clearing station and the air strip. Because most medical officers have inadequate training in this field, the suggestions in this bulletin are presented as a general guide.

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RED CROSS SENDS PENICILLIN BY AIR FOR PRISONERS OF WAR IN GERMANY

The American Red Cross has sent 5,000 tubes of penicillin by air express to the International Red Cross Committee in Geneva to be used for American prisoners of war held by Germany. The Red Cross Plans additional shipments of medicines and medical supplies for prisoners of war. The International Committee has been asked to keep the prison camp leaders informed of the medicines available in the stocks held in Geneva for their use and to suggest that the leaders not allow camp stocks to become depleted before reordering.

Regular shipments of Red Cross first aid kits intended for use when doctors are not available have been made to the prison camps in Germany. Bulk shipments of medicine and medical supplies also have been made to supplement those provided by German military authorities for the care of sick and wounded prisoners of war.

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HEADS SIXTH SERVICE COMMAND

Brig. Gen. Russel B. Reynolds was recently appointed to succeed Major Gen. R. S. Aurand as commanding general, Sixth Service Command. General Aurand's new assignment has not as yet been made public.

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MENTAL HYGIENE COMMITTEE HONORS GENERAL KIRK

The National Committtee for Mental Hygiene has elected Major Gen. Norman T. Kirk, Surgeon General of the Army, as one of its six new members, in recognition of his "unusual awareness of the importance of skilled psychiatric treatment in the Army."

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ARMY AIR FORCES CONFERENCE ON RHEUMATIC FEVER

A recent conference on rheumatic fever was held by the Army Air Forces in Denver. The objectives of the meeting were outlined by Col. William P. Holbrook, chief, Professional Division, Office of the Air Surgeon. Colonel Holbrook also discussed some of the unsolved problems of rheumatic fever which must be met during the next year. The report of the Committee on the Prophylactic Use of the Sulfonamides indicated that these drugs should be used in treatment only as a last resort and that their principal indication is for prophylaxis. The report of the Committee on Criteria for the Diagnosis of Rheumatic Fever contained recommendations based principally on the paper given by Dr. T. Duckett Jones at the Chicago session of the American Medical Association in June. The important recommendations of the Committee for Standardization of Convalescent Care of Rheumatic Fever were that no patient should be discharged to duty until he had actually undertaken duty under supervision in the convalescent center and that this duty should be in accord with his military occupational specialty.

PENICILLIN FAILURES

"Penicillin failures," Arthur L. Bloomfield, M.D.; William M. M. Kirby, M.D., and Charles D. Armstrong, M.D., San Francisco, say in *The Journal of the American Medical Association* for November 11, "for the most part fall into the following groups: cases in which the treatment is too brief or the daily dose too small; cases in which penicillin fails unless surgical drainage is also done; overwhelming infection, even with a sensitive strain (of the invading organism)."

Original Articles

THE OUTLET CONTRACTION WITH ESPECIAL EMPHASIS ON THE TYPICAL FUNNEL PELVIS

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Undeniably the funnel pelvis and especially the typical funnel pelvis constitutes one of the most important pelvic abnormalities encountered in American white women. It may cause serious complications including dystocia and demand expert obstetric judgment.

Most authorities define funnel pelvis as a contraction in which the transverse diameter measures 8 cm. or less or in which the distance between the lower margin of the symphysis and the tip of the sacrum falls below 9 cm. The typical funnel pelvis is described as a contraction which is limited to the pelvic outlet while the superior strait remains normal.

The first accurate description of funnel pelvis was made by Baudelocque and Mme. Boursier du Coudray in the latter part of the eighteenth century.

Busch, in several reports taken from the Berlin Clinic (1829-1847), recognized dystocia frequently occurred in funnel shaped pelves and and emphasized that in those cases which escaped diagnosis, with the head often arrested at the outlet, low forceps were applied in expectation of an easy delivery which many times resulted in considerable force and sacrificing of babies by craniotomy.

Read at the annual meeting of the Illinois State Medical Society, May 18, 19 and 20, 1943.

Schauta in 1889 considered a funnel pelvis as one with a contracted outlet whose walls converged to such an extent that they caused a narrowing of the outlet. In this condition, he held that the contraction would be apt to involve either the transverse diameter of the outlet or the anterior posterior diameter or both diameters at the same time.

In 1896, Klein made a most important contribution when he stated that abnormalities of the outlet were present in 24% of 439 consecutive patients which he studied. He demonstrated very clearly that the dystocia at the time of labor in funnel pelves was not entirely dependent upon the degree of shortening of either the transverse or the anterior posterior diameter but was usually dependent upon the available space between the line joining the tuberosities of the ischium and the tip of the sacrum, which he designated as the posterior sagittal diameter of the outlet. This diameter is in present day obstetric terminology referred to as Klein's posterior sagittal. Klein holds that the pelvic outlet is made up of two triangular planes whose bases meet at the transverse diameter of the inferior strait. Normally the head occupies the entire anterior plane, as well as the anterior portion of the posterior one; but in cases of transverse contraction less and less of the anterior plane can be utilized, while in extreme cases only the posterior plane is available for its passage. In such an event it is evident that the possibility of spontaneous labor will depend not so much upon the length of the anterior-posterior diameter of the outlet, as upon the space available posterior to the tubera ischii.

As far back as 1870, Breisky described a

method to measure the distance between the tuberosities of the ischium as well as the anterior and posterior sagittal. Frankenhauser, in 1879, made an important contribution to outlet pelvimetry which has carried through to the present time.

Undoubtedly, the most important, practical contributions upon this subject, in this country, were made by Williams in 1909, and 1911. In these contributions he emphasized the value of outlet pelvimetry as a routine procedure and directed attention to the fact that contractions of the outlet occur much more frequently than is generally believed and occasionally give rise to serious dystocia. He further pointed out that the typical funnel pelvis most commonly has as its etiological factor a lumbosacral assimilation.

Williams in 1909 made a clinical classification for contractions of the outlet (funnel pelvis) which has stood the test of time. He distinguished between three groups, namely, typical, generally contracted and complicated funnel pelves. In the first type, the superior strait is essentially normal, while the inferior strait is contracted, the narrowing occurring in either the anterior posterior or transverse diameter or in both simultaneously, as described by Schauta. In the generally contracted variety, the entire pelvis is smaller than normal, while the inferior strait is narrowed to a greater extent than is usual in typical justo-minor pelves. In the third group are included a small number of flat or rhachitic pelves, osteomalacia, spondylolisthesis, and lumbosacral kyphosis, in which the outlet contraction is super-added to the typical deformity.

As to frequency, Harris reports from the University of Wisconsin Clinic that in all abnormal pelvic contractions an incidence of 2 to 1 in typical funnel pelves over all other contractions. Stander in 17,700 women delivered in the New York Lying-in Hospital during a period of seven years reported 2,613 contracted pelves of all types in which 25.5% were typical funnel pelves. Mengert in a study of 234 contracted pelves in Iowa white women found the typical funnel pelvis to be the most common type with an incidence of 66.7%. Williams reported in 1911 in 2,215 full term labors an incidence of 44% of typical funnel pelves in 175 white females with contracted pelves. Thoms in 1915 in 4,000 consecutive full term labors, reported from the Johns Hopkins Clinic, an incidence of 36.9% typical funnel pelves in 330 contracted pelves. (See Figure 1.)

As to etiology, Williams has undoubtedly shown that lumbosacral assimilation plays the important role in typical funnel pelves. He has further shown that high assimilation alters the relations of the sacroiliac joints so that the lower portion of the walls of the pelvic cavity converge resulting in the contraction of the pelvic outlet. However, in the typical funnel pelvis the superior strait retains its approximate normal proportion. In his series of typical funnel pelves, Williams was able to palpate six sacral vertebrae in a number of his patients, which helped to confirm this theory.

Breus and Kolisko have pointed out the frequent occurrence of lumbosacral assimilation and its effect upon the shape of the pelvic outlet. Hart has directed attention to his views on sexual inversion in the pelvis, in which he

FIGURE 1

	Johns Hopkins 6,407 White Women			Iowa 6,426 Women		
	Number of Patients	Incidence	Per Cent of Contracted Pelvis	Number of Patients	Incidence	Per Cent of Contracted Pelvis
Generally contracted, including generally contracted funnel	345	5.38	39.98	41	0.64	17.5
Funnel, typical	289	5.03	33.49	156	2.43	66.7
Simple flat	156	2.43	18.07	25	0.39	10.7
Generally contracted rachitic	33	0.52	3.82	1	0.02	0.4
All others	40	0.63	4.63	11	0.17	4.7
Totals	863	13.99	99.99	234	3.65	100.0

Courtesy of Dr. William T. Mengert.

holds that there may be an existence of male characteristics in the ischiopubic portion with associated female characteristics in the iliosacral region, which give rise to funnel pelves.

Funnel pelves associated with rickets, osteomalacia, spondylolisthesis and lumbo and lumbarsacral kyphosis are not typical funnel pelves, but should be placed in the third group of Williams' classification of funnel pelves.

Over a period of years, the physician doing obstetrics has been more concerned with contractions of the inlet and has been inclined to overlook other contractions. It is most important to consider that the presenting part must not only pass through the superior strait or inlet, but through the mid pelvis where midplane contractions occur and finally it must make its exit at the outlet where funnel pelvis occurs. The foregoing statement means that meticulous pelvimetry should include not only the common external pelvic measurements but outlet measurements and internal measurements and examination as well. There are no substitutes in good obstetric care for these procedures.

To re-emphasize, a critical state of affairs still exists in the medical profession relative to pelvimetry. It is undoubtedly true that in too many instances, the external measurements commonly taken, such as, the distance between the anterior superior spines, between the crests of the ilium, between the heads of the trochanters, and between the depression beneath the spinous process of the lumbar vertebrae and the anterior surface of the symphysis pubis, are taken with the exclusion of internal and pelvic outlet measurements.

It is important to point out that the common external measurements may give a very erroneous idea as to the existance of a contracted pelvis; it is possible to have the external measurements all within normal limits with marked inlet contraction and certainly the common external measurements give little or no information as to what one may expect at the outlet.

I have found in postgraduate and refresher courses that many physicians react to outlet pelvimetry as if it were a curiosity and have no idea as to the taking of the measurements of the pelvic outlet.

In regard to outlet pelvimetry, Thoms made a valuable contribution in 1915; his technique in outlet pelvimetry is used in our Department

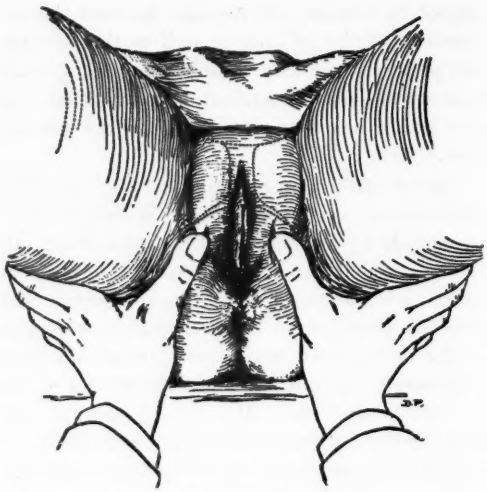

Figure 2

Palpation of pubic arch.

Courtesy of Dr. H. J. Stander and D. Appleton-Century Co., publisher of Williams Obstetrics.

of Obstetrics. As Thoms points out the diagnosis of outlet contractions depends upon the external palpation of certain bony landmarks and the measuring of certain diameters taken between these points. These landmarks are namely, the points corresponding to the most widely distant portions of the inner lips of the tuberosities of the ischium, the lower margin of the symphysis pubis and the tip of the sacrum. The greatest distance between the inner lips of the tuberosities of the ischium is designated as the transverse diameter of the outlet or the intertuberous diameter. The shortest distance between the lower margin of the symphysis and the anterior surface of the tip of the sacrum is called the anterior posterior diameter. From the center of the transverse diameter extending forward to the lower margin of the symphysis, a line may be drawn which is known as the anterior sagittal diameter, likewise, from the same point on the transverse diameter a line may be extended posteriorly to the anterior and lower most point of the tip of the sacrum, this is spoken of as the posterior sagittal diameter. If one examines these points in the bony pelvis it is seen that the anterior posterior diameter lies in a different plane from the others and does not represent the sum of the anterior and posterior diameters.

The following is the routine procedure for outlet measurements as carried out in our clinic;

the patient is placed in an ordinary obstetric examining position, on the back with the legs flexed and in stirrups, with the buttocks protruding over the end of the table so that the sacrum is readily palpated. The tubera ischii are first palpated, this is accomplished by grasping the buttocks in each hand in such a way that the thumbs outline the course of the ischiopubic rami while the web of the thumb comes in contact with the corresponding ischial tuberosity and the hollow of the hand holds the buttocks. (Figure 2). In this way the outlines of the pubic arch are very satisfactorily indicated by the position of the thumbs so that with a little practice one can readily determine whether it is normal, narrowed or very contracted.

After palpating the greatest width between the tuberosities, the thumbs are placed in such a position that their nails form a prolongation of the inner surface of the most widely separated portion of the ischial bones. The pelvimeter is then fitted upon the thumbs as in the accompanying illustration, and the widest distance between the tuberosities found; the distance between the thumb nails is then read directly off the centimeter scale. (Figure 3). With the instrument still in position the tubes are closed and one thumb is disengaged. The disengaged hand grasps the center of the horizontal larger tube and maintains it with slight pressure so that the axis of this part of the instrument and the intertuberous diameter coincide. Now the end of the free blade is brought in contact with the lower margin of the symphysis, this gives the length of the anterior sagittal. (Figs. 3a & 3b). The long arm of the pelvimeter is rotated and the distance to the tip of the sacrum is determined. The anterior posterior diameter is measured by placing one end of an ordinary pelvimeter at the lower margin of the symphysis pubis with the other end at the tip of the sacrum located through the skin. A deduction of 1 cm. in this measurement will give a fairly accurate idea of the length of this diameter.

The normal measurements of the outlet are

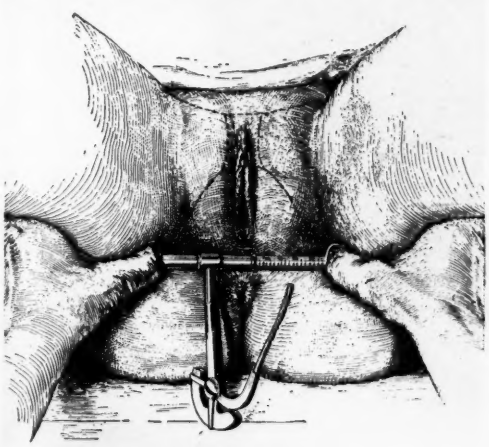

Figure 3

Showing mensuration of transverse diameter of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

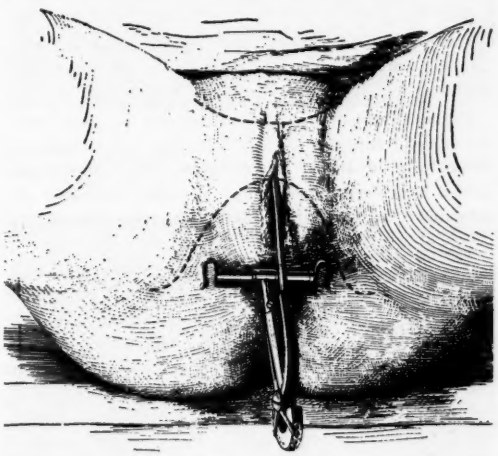

Figure 3a

Showing mensuration of anterior sagittal diameter of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. J. H. Stander and the D. Appleton-Cenutry Co., publisher of Williams Obstetrics.

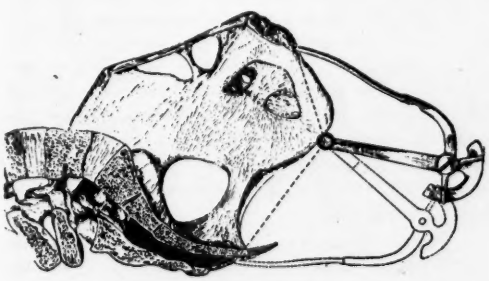

Figure 3b

Diagram illustrating mensuration of the anterior and posterior sagittal diameters of outlet by means of Thoms' Pelvimeter.

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

as follows: anterior sagittal, 6 cm.; posterior sagittal, 9.5 cm.; anterior posterior, 12 cm.; intertuberous, transverse or bi-ischial, 10.5 cm. (Williams); 9.5 cm. (Mengert). It is of interest to note that there does not seem to be very much variation in the anterior sagittal, however the thickness of the symphysis may vary it.

In my experience x-ray pelvimetry has proven a valuable adjunct to ordinary pelvimetry, but has not and should not replace it. I am presenting two cases which show the value of x-ray pelvimetry.

Case A was a patient admitted upon the orthopedic service for major surgery. Since the findings and history in this case were interesting from an obstetric standpoint, I was asked to see this case in consultation.

History: The patient had twelve normal spontaneous deliveries, most of them under the supervision of a mid-wife.

Pelvic examination was difficult due to some ankylosis of the hip joints. The following pelvic measurements were obtained: interspinous, 29½; intercristous 33½; intertrochanteric 35½; external conjugate 23; intertuberous 8; anterior sagittal 6; posterior saggital 10½; anterior posterior 13.

Morphology by x-ray: The entire bony pelvis has greater bone mass than normal and there is generalized osteoporosis. There are hypertrophic changes of the lumbar vertebrae and of both hip joints. These changes are most marked on the right where the joint space has been relatively obliterated. The side walls of the pelvis are convergent towards the outlet, meeting in a narrow sub-pubic arch. Both of the acetabula fossae are depressed inward causing a bulge which encroaches upon the lateral pelvic wall. The ischial spines are poorly marked and difficult to visualize but they do not appear to encroach upon the midplane. The symphisis is unusually broad and there is little symphyseal spread. The sub-pubic angle is narrow and is estimated to be about 90 degrees. The pubic rami are short and terminate in a narrow intertuberous diameter. The lateral and anterior posterior curvatures of the sacrum are good. The sacrum is composed of five segments. The coccygeal segments are not visualized. The pelvis is shallow. The sacrosciatic notches are unusually broad and this results in an outlet which is spacious in its posterior portion.

Stereoroentgenograms (percision method):

A.P. Template	9.9 cm.
Greatest transverse inlet	14.7 cm.
Greatest ischial spines	9.75 cm.
Greatest intertuberous	6.5 cm.

Lateral stereoroentgenograms

Lateral templates	10.0 cm.
Obstetric conjugate	11.8 cm.
Conjugate diagonalis	13.1 cm.

Impression: This is a typical funnel pelvis with a narrow intertuberous diameter. However, the posterior

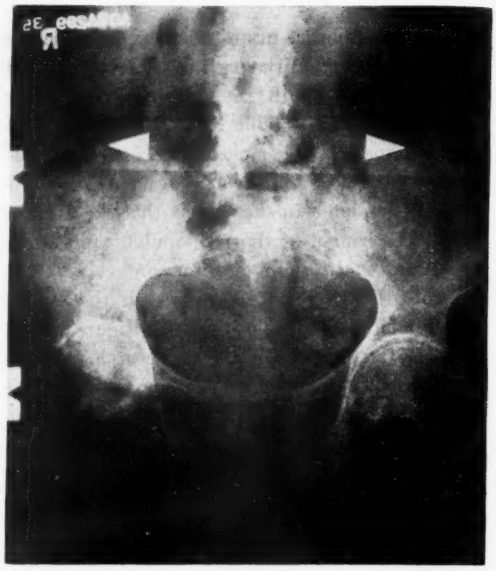

Figure 4

Case A. Anterior posterior stereoroentgenogram typical funnel pelvis.

Figure 5

Case A. Lateral stereoroentgenogram typical funnel pelvis.

plane of the pelvic outlet is large enough as a result of the long posterior sagittal diameter to permit successful spontaneous deliveries.

Figures 4 and 5 are anterior posterior (A.P.) and lateral stereoroentgenograms of Case A, showing a funnel pelvis which by this method of pelvimetry gave a calculation of an intertuberous diameter of 6.5 cm. compared to 8 cm. in regular external pelvimetry. The posterior sagittal in the lateral stereorentgenogram was not measured because a stereoroentgenometer was not available, however, note the enormous size of the sacrosciatic notch. This would indicate that the posterior sagittal was large.

Case B. This patient, a primigravida, was seen by me at eight weeks duration of pregnancy. Her external pelvic measurements were as follows: interspinous 25; intercristous 28; intertrochanteric 30; external conjugate 19; diagonal conjugate — not reached; intertuberous 7.5; anterior sagittal 12; posterior sagittal 8.5.

Morphology by x-ray: This pelvis is symmetrical and predominantly gynecoid in type. The inlet is well rounded in both hind and fore pelvis. The bore is convergent with the side walls tapering toward the outlet. The lateral bore is straight. The ischial spines are relatively sharp and encroach only slightly upon the mid-pelvic cavity. The sacrum is average in width, has a normal lateral curvature and is composed of five segments. It is rather straight in the longitudinal view with an angulated five segment coccyx bending rather sharply forward. The sacrosciatic notch is rather narrow and deep. The sub-pubic rami form a narrow angle at the outlet.

Estimated distance between bases of markers — A.P. 10.221 cm. .....error plus 2.21%
Estimated greatest transverse diameter of inlet — average correction .....13.88 cm.
Estimated interischial spinous diameter — average correction ..... 9.74 cm.
Estimated intertuberous diameter — average correction ..... 6.7 cm.
Estimated posterior sagittal .....(stereoroentgenometer not available)
Index of outlet .(stereoroentgenometer not available)
Estimated conjugate vera (Thom's lateral) ..13.1 cm.
Estimated obstetric conjugate (Thom's lateral) .....12.7 cm.
Estimated conjugate diagonalis .....13.0 cm.

Impression: This funnel type pelvis with a contracted outlet is not a desirable type for a full term foetus, since there is every indication based upon the lateral stereoroentgenogram that there will be dystocia at the outlet. Unquestionably, Klein's posterior sagittal diameter is very short and there is not ample room in the posterior space of the pelvic outlet. There is a suggestion of rickets in the sacrum.

Figures 6 and 7 show anterior posterior and lateral stereoroentgenograms. This pelvis gave an intertuberous diameter of 7.5 and a posterior sagittal diameter of 8.5 cm. by regular pelvimetry. X-ray pelvimetry showed the transverse of the outlet to be 6.7

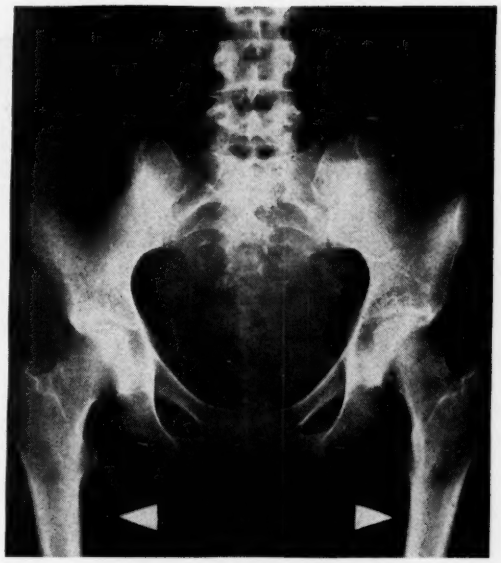

Figure 6
Case B. Anterior posterior stereoroentgenogram typical funnel pelvis.

Figure 7
Case B. Lateral stereoroentgenogram typical funnel pelvis.

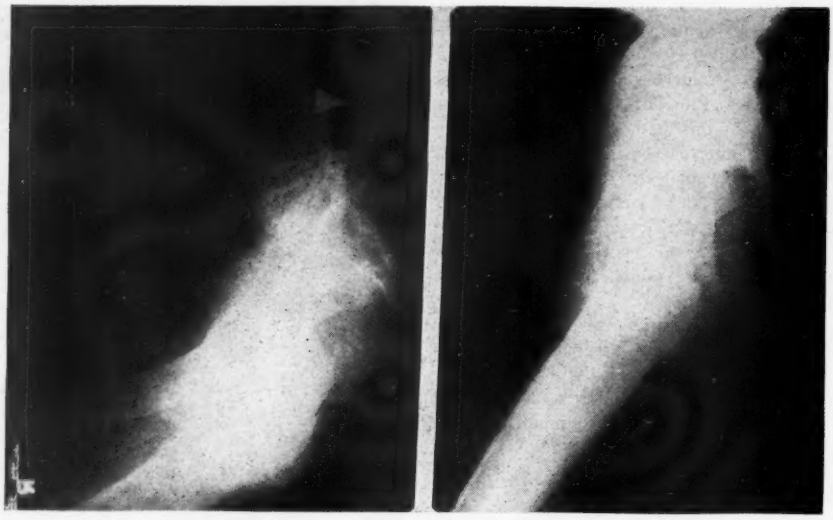

Figure 8
Case A and B. Lateral stereoroentgenograms typical funnel pelves.

cm. but the anterior posterior stereoroentgenogram and the posterior sagittal were not measured because a stereoroentgenometer was not available. However, note how small the sacrosciatic notch is, this indicates very definitely that the posterior sagittal of Klein is very short as external pelvimetry indicated.

An elective cesarean section was the treatment of choice in this case.

Figure 8 shows the lateral stereoroentgenograms of Case A and B, revealing an interesting comparison between the two cases and their sacrosciatic notches, which indicate the comparative lengths of Klein's posterior sagittal.

As to prognosis and treatment, Williams points out that a transverse diameter of 8 cm. or less is short and emphasizes that unfortunately, the length of the diameter either alone or in combination with the anterior posterior diameter does not furnish sufficient factual data to establish an intelligent prognosis.

It is wrong to assume that outlet contractions rarely give rise to serious dystocia and that a considerable hazard can not result for both mother and child. On the other hand reports from the literature show that this complication may be fraught with serious danger for both mother and child. I have been thoroughly convinced by experience that the foregoing statement is true.

It is important to realize that the greatest danger to both mother and child lie in those cases in which funnel pelvis has been undiagnosed. As has been stated elsewhere the pelvis with a transverse of the outlet of 8 cm. should be considered a funnel pelvis and be regarded as a potential danger. For the most part, the prognosis is dependent upon the length of the posterior sagittal. Figure 9 is an illustration in which spontaneous labor occurred through a transverse diameter of the outlet of 5.5 cm., and figure 10 is one in which cesarean section was indicated in spite of a transverse diameter of the outlet of 6.5 cm. The outcome in both of these cases was dependent upon the posterior sagittal. Figure 11 is a table compiled by Williams to show when the transverse of the outlet is shortened what the proportionate increase in Klein's posterior sagittal should be for spontaneous labor to occur, when the size of the baby is normal. Although this table has considerable merit it should not be decisive. Another dictum is that if the sum of the transverse and the posterior sagittal diameters exceed 15 cm. a spontaneous birth of a normal size baby is likely to occur.

I agree with Stander that the treatment of the funnel pelvis demands expert obstetric judgment. In dealing with it, we do not have the opportunity of estimating disproportion in a given patient as is possible in inlet contraction.

The exaggerated Sims' position may be use-

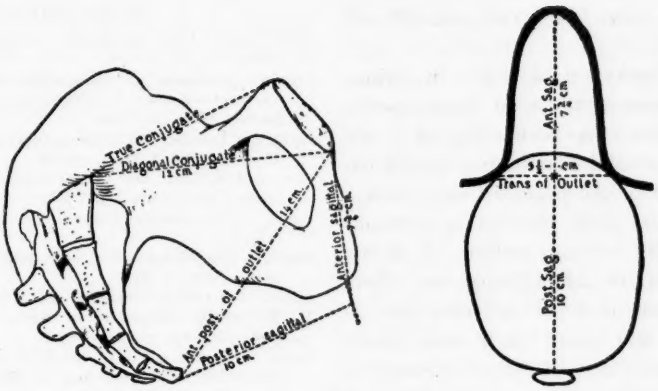

Figure 9
Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

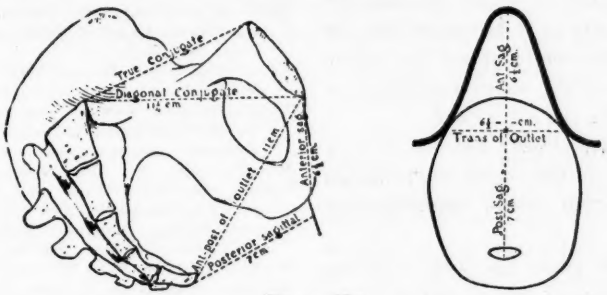

Figure 10
Courtesy of Dr. J. H. Stander and the D. Appleton-Cenutry Co., publisher of Williams Obstetrics.

Figure 11
Table showing proportionate increase in Klein's posterior sagittal for spontaneous labor to occur.

Transverse Diameter, Cm.	*Posterior Sagittal, Cm.*
8	7.5
7	8
6.5	8.5
6	9
5.5	10

Courtesy of Dr. H. J. Stander and the D. Appleton-Century Co., publisher of Williams Obstetrics.

ful in increasing the size of the posterior sagittal as much as from 1 to 4 cm. by allowing the innominate bones to rotate upon the sacrum, which may obviate an operative delivery in minor degrees of contraction. Also exaggerated lithotomy and the squatting posture may temporarily increase the posterior sagittal diameter and aid in delivery.

Relative to forcep operations in the funnel pelvis, it is imperative that traction be made directly outward or downward and outward, never upward as would be the procedure in low forceps delivery in normal pelves. Deep episiotomies should be done to prevent soft tissue injury. If reasonable traction in face of apparent obstruction is applied and continued with no advance it may result in serious consequences for both mother and child. Fracture of the skull and intracranial injury for the child and deep lacerations and bony pelvis injury for the mother may result.

It is my conviction as a result of checking the bony pelves of patients admitted to our clinic for extensive plastic surgery, including third degree lacerations that a great many of such injuries undoubtedly had resulted from unrecognized funnel pelves in which forceps operations had been performed. Such a deduction is reasonable as the narrowing of the pubic arch forces the head to pursue a more posterior course, thereby applying greater pressure to the soft tissues and causing injury.

In occiput posterior presentation the funnel pelvis frequently hinders the anterior rotation

resulting in deep transverse arrest, and difficult delivery.

Formerly the operation of choice in serious and unsurmountable dystocia in funnel pelvis was pubiotomy which has been relegated to obscurity. Early prenatal examination should obviate the problem of the neglected case when a decision has to be made between spontaneous delivery or elective cesarean section. It is my frank opinion that in the neglected case where the presenting part can not be delivered through the pelvic outlet and where the presence of infection is reasonably certain, that craniotomy is the method of choice. The second choice of treatment would be surgical, the type of surgery being determined by the consideration of infection, potential or frank, which immediately brings up a controversy as to the use of the low cervical section on the one hand and the radical or porro cesarean section, extra peritoneal, or exclusion operation on the other hand.

In women who have already lost one or more children as a result of this outlet complication, elective cesarean section should unquestionably be done.

In conclusion, this paper has been worth the effort if I have convinced any of you as to the seriousness of the outlet contraction and the importance of outlet pelvimetry.

I wish to thank Dr. William K. Knight and Dr. Curtis J. Lund for their assistance in the x-ray pelvimetry.

4133 Manitou Way
Madison, Wisconsin

DISCUSSION

Dr. R. J. Hawkins, Chicago: First of all, I should like to compliment Dr. Campell on his excellent essay, but there is just one point I should like to bring up in the discussion. Perhaps it is just a minor point, but we have discussed the posterior sagittal diameter. I think the term very properly should be the "posterior pelvis." From the physical examination of the patient it is not a difficult task to estimate the posterior pelvis by merely running your finger across the sacro-spinous ligament and estimating the size of the sacrosciatic notch.

Another thing that was not mentioned so far in the paper, is the size of the baby in estimating what is likely to occur. In a moderate contraction it is a case of judgment — and often you are damned if you do, and damned if you don't. But I think the size of the baby should at least be mentioned in a discussion of this kind.

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NASAL MEDICATION

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The use of nasal medication has never been as widespread and popular as it is today. One may readily ask why this is so. In part, its popularity is most likely due to the public's growing awareness that common colds are known to be possible forerunners of serious complications. In part, the answer lies in the fact that it has made convincing scientific progress. Actually, nasal medication may be considered to be tapping on the door of maturity. The tapping should grow louder, for there is ample evidence to demonstrate that it will continue to improve with the passing of time.

To a large extent the advance made by rational nasal medication can be attributed to our expanding knowledge of the physiology of the nose and the histopathology of nasal and sinus mucous membranes. In this connection the in-

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vestigations of a number of American rhinologists have often proved noteworthy and meritorious. A second factor responsible for improved nasal medication can be attributed to the trend toward greater conservatism in the treatment of nasal and sinus disease. Clearly, this is a natural reaction to some of the ill-advised surgical practices of the 1920's. A third factor has been the ability of pharmacologists to produce nasal preparations in many instances which are non-toxic or which possess a minimal rate of toxic absorption. As a result of these forces, impetus has been given physicians and the public for a free and wide selection of nasal medicaments.

At the present time it is difficult to obtain a complete list of the various types of nasal medication now available to the medical profession and to the public. There does exist, however, one source which provides a numerical index, incomplete though it may be, to nasal medication. This work enumerates many thousands of ethically promoted drugs acceptable to the medical and allied professions, listing several hundred nasal preparations for use in disease of the nose and nasal sinuses. Many of these preparations are popular and enjoy a measure of clinical success; others, despite ethical promotion on the part of well intentioned pharmaceutical manufacturers, continue to be obsolescent as far as concerns the modern tempo of nasal physiology. Significantly, this shortcoming is equally applicable to a large number of non-ethical medicaments advertised directly to the general public.

Nasal medication is available in many forms and for many purposes. That there exists an element of confusion and a degree of chaos in nasal therapy is evident by calling the roll of various kinds of nasal medicaments: vasoconstrictors, silver preparations, sulfonamide preparations, anti-biotics, oils, antiseptics, topical anesthetics, volatile inhalers, powders, estrogens, intranasal vaccines, cauterizing agents, saline solutions, bacterial lysates, emulsions, inhalants and nasal jellies. Many of these preparations are useful and worthy of clinical trial; some are of questionable value, while others are detrimental to the nose and sinuses.

Before we can hope to erect a solid foundation for the housing of sane nasal medication it is essential to know how the nose functions. Disturbances in the nose quite frequently are an expression of disturbed physiology rather than the end-result of gross pathologic change. The more one examines the reaction of the normal or abnormal nose, the more firmly does this fact impress itself upon the observer. The disturbances or diseases which concern the nose and nasal sinuses, be they functional or pathological, have an array of symptoms common to both origins. For the relief of such prevalent complaints as sneezing, nasal obstruction, discharge, tickling, burning, itching and dryness, the use of nasal medication has become exceedingly widespread. Despite that popularity, however, relatively few nasal preparations are prepared for public distribution with sufficient scientific forethought to produce the most effective product possible from the materials at hand. Such a state of affairs can be remedied by recognizing the significance of nasal physiology.

Wide acceptance of a rational form of nasal and sinus therapy by the medical profession can be established only if there is a clear understanding of the manner in which nasal preparations work. Such an understanding is assisted materially by studying the effects of drugs on several very important factors: (1) ciliary action; (2) nasal pH; (3) the behavior of the mucous membrane lining of the nose; and (4) the production of systemic and local side-effects. Nasal medication harmful to ciliary action impairs a highly important function. Markedly alkaline drugs are very irritating to the nasal mucous membrane; drugs prompting pathologic change in the underlying mucous membrane are agents to be avoided. Drugs which induce toxic reactions following intranasal medication are undesirable and merit small consideration in routine practice. Conversely, non-toxic medication, compatible with ciliary action, possessing a physiologic nasal pH and which is non-traumatizing to the mucous membrane, is most useful in the treatment of nasal and sinus disease for it functions on a rational, physiologic basis.

Ciliary action constitutes one of the most important natural defenses of the nose. The nasal mucous membrane is covered by a thin blanket of mucus which is kept moving in the direction of the nasopharynx by the action of cilia. The mucus film is kept in constant motion toward the nasopharynx by the action of cilia directly, by traction, by the force of gravity and by the action of swallowing. It is admirably adapted

to the function of entrapping dust, bacteria, powder, etc. Any interference with the continuity of the mucous coating or with the action of the cilia will permit inflammatory organisms to gain entrance into the underlying tissues. Therefore, in treating nasal diseases, it is wise to conserve and favor, as far as possible, this natural means of muco-ciliary defense against organisms.

With these phenomena in mind, the necessity for altering the point of view of treatment of nasal conditions from an exclusively bacteriologic to a physiologic one becomes apparent. The tendency to assume that nasal medication should always include antiseptics on the theory that the nose is teeming with pathologic bacteria is unfortunate. While the elimination of pathogenic nasal organisms is desirable, and perhaps may be accomplished on some occasions by appropriate nasal antiseptics, one should always remember that the natural defenses of the nose as expressed by ciliary activity are most helpful.

Preservation of ciliary activity is often assured by isotonicity. A solution is said to be isotonic when it exerts exactly the same osmotic pressure as a second fluid with which it is brought in contact. Whenever a solution is applied to the nose, unless that solution is of the same osmotic pressure or is isotonic with the surrounding secretions, an unpleasant irritation is frequently instituted. It has been demonstrated that cilia remain active over long periods in physiologic solution of sodium chloride, but lose their activity when more concentrated, hypertonic solutions of salt are employed. Should the concentration of the solution be made hypotonic, all activity ceases and the cilia are permanently disabled. These findings indicate quite clearly that an isotonic saline solution is the vehicle of choice for nasal medication.

Another extremely important biological phenomenon involving nasal secretions is pH. It will be recalled that the pH scale, a means of expressing hydrogen ion values numerically, is today in common usage. The working range of the pH scale lies between 0 and 14. Values below 7 indicate an increased hydrogen ion concentration, or predominance of the acid reaction, while values above 7 indicate an alkaline reaction. Recent investigations demonstrate the clinical significance of nasal pH. The pH of nasal secretions in situ in the clinically normal nose has been found to be slightly acid, between 5.5 and 6.5. Conversely, during the acute stages of the common cold and sinusitis, and during the more active phases of an attack of allergic rhinitis or hay fever, the nasal secretions become alkaline.

These findings possess clinical significance, for those nasal preparations instilled into the human nose which are capable of lowering the nasal pH from an abnormal alkaline state to a desirably normal, acid state may perform a valuable function. On the other hand, nasal preparations that raise, enhance or perpetuate an alkaline nasal pH during acute nasal infections may prolong an undesirable status of nasal pH, a status in which the bacteria accompanying the acute infection find a fertile field for growth. Some few years ago an English investigator correlated the bacterial flora of the nose and sinuses with the pH values and found that a definite relationship between these two factors could be determined. He noted that in all patients in whom the pH value was 6.5 or below, cultures were negative. With an elevation to the alkaline side, bacteria were usually found. It was concluded that low acidity is unfavorable to the growth of pathogenic bacteria. In allergy, it is particularly significant that when the pH of the nose falls low on the acid side there is a complete disappearance of the eosinophiles; but when the pH returns to the alkaline side there is a return of the eosinophiles. From the point of view of applied nasal therapeutics, these investigations establish the importance of utilizing slightly acid nasal preparations. To divorce and separate the ciliary factor from the pH factor is to tell but half the story of applied nasal physiology. The generally accepted American advertising slogan "It is time to alkalinize" certainly does not apply to the local treatment of the nasal mucous membrane.

One of the pivots about which the establishment of rational nasal medication revolves in part is the mucous membrane. From the time the human being is born to the time that he dies, the lining mucous membrane of his nose is continuously subjected to the lashings of acute infections, weather conditions, smoke, dust and chemical substances. Since the mucous membrane of the nose is a specialized tissue whose chief functions are respiration and olfaction, it

is obvious why it undergoes a variety of microscopic and gross changes in adapting itself to ever-changing environmental circumstances. Less obvious is the tendency in some quarters to prescribe nasal medication harmful to the mucous membrane. A case in point is the local use of highly alkaline sulfonamide preparations in the nasal cavity.

Early last year Long declared that the introduction of sulfonamide compounds as prophylactic and curative agents in the field of surgery has not been an unmitigated blessing because of a growing tendency to neglect fundamental principles of good surgical judgment and technique and to rely instead on the wholesale use of the "wonder drugs". In a limited sense, this judgment is equally applicable to the promiscuous use of sulfonamides in nasal and sinus infection; for here, many physicians neglect the sound physiologic principles upon which rational nasal and sinus medication rests. The danger in ignoring some of these basis principles is amply illustrated by the use by nasal spray of a 5% solution of sodium sulfathiazole in the treatment of chronic sinusitis. When this proposal was described, many physicians throughout the country began a mass clinical trial before adequate laboratory investigation had been undertaken. The pH of a 5% solution of sodium sulfathiazole is approximately 10; hence, it possesses decidedly irritating properties and is all together too alkaline for the nasal mucous membrane.

Investigations by three groups of investigators demonstrate conclusively that alkaline preparations of sodium sulfathiazole injure the mucous membrane. Furthermore, the destruction of cilia, and consequently the impairment of ciliary function, together with its deviation from a physiologic nasal pH, as well as the disorganization of the olfactory epithelium which such preparations establish, plus the production of bronchopneumonia in laboratory animals, cannot justify the indiscriminate selection of sodium sulfathiazole preparations for use in the human nose.

Appropriate drugs selected for effective nasal and sinus medication should in a measure not only do what the physician hopes to accomplish without harming the nasal tissues, but also should do no harm elsewhere in the body. It is obvious that drugs which induce toxic reactions following intranasal medication are undesirable and merit small consideration in routine practice. Undeniably, nasal medicaments that consistently produce unlooked for changes in blood pressure, pulse rate and alterations in respiratory frequency, as well as such symptoms as general nervousness, insomnia and tremor, cannot be considered satisfactory. Fortunately, a comfortable margin of safety accompanies the selection of a number of nasal medicaments currently utilized. While side-effects sometimes occur, it should always be kept in mind that no rational employment of nasal medication can tolerate promiscuous and injudicious over-indulgence. Physicians should realize that there is a growing tendency on the part of the general public to indulge in promiscuous self-medication. This is especially true in the field of nasal medication. To warn against the unpleasant sequelae following promiscuous and prolonged daily nasal self-medication is an obligation of physicians.

Patients employing sulfonamides locally are potentially subject to all the risks entailed by oral or parenteral administration. In a therapeutic field as new as this, physicians should be on their guard as to the possibility of such complications as allergic rhinitis, toxic dermatitis, hematuria, jaundice, blood dyscrasias, hyperpyrexia, central nervous system effects, weakness and pallor, and nausea and vomiting. Unintelligent and careless local use of sulfonamide preparations may develop in the patient a sulfa- resistant state. In general, such resistance is by no means a theoretical matter.

While the evidence to date would seem to indicate caution in the use of some of the sulfonamide preparations in the nose and sinuses, others are employed successfully in a limited number of directions. It is quite possible that the near future may see the further introduction of sulfonamide preparations, as well as new anti-biotics, which locally are non-toxic and which are compatible with the tenor of modern day nasal physiology. Such agents, however, may in time prove useful only as an adjunct to the effective treatment of nasal and sinus infection, rather than as a universal "cure-all".

The responsibility for continuing the march of progress so far made by nasal medication lies directly within the sphere of three groups of people. For one, the physician has a responsi-

bility to his patients. He should prescribe nasal medication formulated on sound physiological and pharmacological principles. To prescribe obsolescent products is to fall short of prescribing the established best in local nasal therapy. Secondly, pharmaceutical manufacturers have a dual responsibility: to the general public, and to the medical profession. It is their function to manufacture the best type of nasal medication, consistent with principles generally accepted as being highly desirable. In this direction a progressive spirit is displayed by many pharmaceutical houses as evidenced by a trend toward adequate manufacturing control. Finally, the general public should be educated to assume a responsibility all its own — that of supporting and purchasing nasal medication established on sound principles. It is often true that the public has little equipment to differentiate between good and bad; but to some extent, this confusion is being eliminated by a campaign of education promoted by physicians and progressive pharmaceutical houses.

Improved treatment of nasal and sinus disease demands improved nasal medication. Improved nasal medication requires an alert medical profession and a progressive pharmaceutical body. The cause of rational nasal medication can acquire a sympathetic audience only through the cumulative education of physicians, manufacturers and the general public. Then, perhaps, the clarion call for an ideal nasal medication may be answered, and the achievements of today may lead to the greater benefits of tomorrow.

185 N. Wabash Avenue.

IMPORTANT

Send changes of address to 30 N. Michigan Ave., Chicago 2, Illinois enclosing label from a copy showing your old address. Changes received after the 1st of the month will not go into effect until the following month.

MESENTERIC THROMBOSIS WITH POST-OPERATIVE ADMINISTRATION OF DICUMAROL

PAUL F. FOX, M.D., F.A.C.S.
CHICAGO

Mesenteric thrombosis is a very serious and frequently fatal condition. Hertzler[1] states that even after operative resection, the thrombotic process usually extends, and that reports of recovery should be viewed with suspicion. Consequently, any method of preventing or limiting the spread of the thrombus should be of great value. There have been reports[2] of the use of dicumarol in patients with mesenteric thrombosis and the results were apparently good. For this reason, the patient herein discussed was given the anti-coagulant, dicumarol. (3, 3′ — methylenebis 4-hydroxycoumarin)*

CASE REPORT

J. P., white, male, aged 65, hospital number 44-7346, entered the hospital at 11:30 A.M. on July 12, 1944. His chief complaint was pain in the right lower abdominal quadrant. Nine and one-half hours before admission he had noticed pain, sudden in onset, crampy in character, occurring every half hour and lasting about two minutes, located in both lower abdominal quadrants. Three or four hours after the onset of the pain, the location changed to the right lower abdominal area and it became constant in character. After this it gradually increased in severity. No nausea or vomiting occurred, but a distinct feeling of weakness was noticed. There had been no bowel movement on the day of admission, but a normal evacuation had been noted the previous day.

Past history showed only an attack of biliary colic which subsided in one day, occurring one year prior to admission.

Examination at the time of entry to the hospital revealed a rather corpulent white male, aged 65, not acutely ill. His temperature was 99.6°F., pulse rate 76, respiratory rate 22 and blood pressure 150/86.

The essential finding at this time was slight tenderness in the right lower abdominal quadrant.

He was given two grains of sodium luminal hypodermically and an ice bag was placed on the lower abdomen. A period of observation was deemed advisable because of the absence of significant physical findings.

The blood count, taken soon after admission, showed 4,560,000 erythrocytes, 14 grams hemoglobin, and 13,300 white blood cells of which 84% were neutrophils, 1% basophils, 8% lymphocytes and 7% monocytes.

The urine was normal.

From the Department of Surgery — St. Anne's Hospital, Chicago.

*Dicumarol obtained through the courtesy of The Eli Lilly Co., Indianapolis, Ind.

Eight hours after admission, his temperature had risen to 100.2°F. The right lower abdominal region was moderately rigid, and there was definite tenderness and rebound tenderness in this area. The rectal examination showed no abnormalities. Confirmatory signs of appendicitis (obturator, psoas, Rovsing, etc.) were absent. Nevertheless, because of the tenderness and rebound tenderness in the right lower abdomen, a diagnosis of acute appendicitis was made and operation advised.

At operation, which was performed under spinal anesthesia (150 mg. novocaine), a McBurney incision was made. Upon opening the peritoneum, a moderate amount of blood-tinged fluid escaped. The appendix, which was grossly normal in appearance, was removed. Weir's method of extending a McBurney incision was then utilized and the lower abdominal cavity examined more fully. A segment of bowel, firm to palpation, was easily withdrawn from the abdominal cavity. This bowel was identified as distal ileum. Its color was dark with a thick wall covered by a thin, fibrinous exudate and its length was 12 cm. The mesentery attached to it was thick, edematous, and no pulsating vessels in it could be felt. Beyond this area of involved bowel the mesentery was edematous for a considerable distance both proximally and distally. However, the intestine proximal to the involved area, was only slightly distended. Because the patient's condition was satisfactory, a resection was decided upon and accordingly a segment of ileum 60 cm. in length was resected. This included all bowel to which edematous mesentery was attached and extended from a point about 10 cm. proximal to the ileo-colic juncture to a point in the lower ileum 60 cm. above. As the mesentery was divided (close to its root) some of the vessels were seen to be filled with well developed thrombi.

A lateral (side to side) anastomosis was performed after the resection. The opening in the mesentery was closed and the abdominal wound closed without drainage.

The pathological examination was made by Dr. Lewis R. Hill and the report was as follows: "The section of ileum is 60 cm. in length. The serosa is smooth except for approximately 12 cm. in the middle which is covered with a thin, fibrinous exudate. The wall is edematous. The mesentery to its root is attached and contains thrombosed blood vessels. The appendix is 8x0.7 cm. with slightly roughened and injected serosa, thick wall and narrow lumen.

Microscopic sections reveal hemorrhagic infiltration in the mesenteric fat and occlusion of the mesenteric blood vessels with blood clot. Sections of the involved bowel wall show edema and marked engorgement of the vessels, beginning leucocytic infiltration of the serosa and beginning epithelial desquamation of the mucosa."

Aside from the use of the dicumarol, the post-operative management was the usual one for a condition of this kind. Intravenous fluids and Wangensteen suction siphonage (except for the time intervals it was shut off after the oral dose of dicumarol) were required for the first four post-operative days.

The accompanying table shows the dosages of dicumarol given and the effect on the prothrombin time. The drug was given by mouth each afternoon (after the first dose) and the prothrombin time determined each morning by the Quick method. No untoward effects were observed as a result of its use.

Post-Operative Day 1	2	3	4	5	6	7	8	9	10	11
Prothrombin Time. Percent of Normal	84%	100%	89%	58%	33%	26%	50%	60%		71%
Dicumarol Mgs. 300	100	200	200	100	100					

On the eighth post-operative day the patient became ambulatory. Wound healing was uneventful.

Beginning on the fourth post-operative day, the patient was somewhat distressed by frequent, watery stools, which fortunately, diminished in frequency each day. By the time he left the hospital on the 13th post-operative day, he was having three bowel evacuations daily without distress.

Since leaving the hospital, the patient has been seen on five occasions and he is well and active. His recovery is satisfactory and apparently complete.

COMMENT

In reviewing this case report, it is evident that the onset and spread of the thrombotic process must have been rather gradual as shock and early obstructive manifestations were not present. Nevertheless, the findings at operation were unquestionably those of mesenteric thrombosis.

It is difficult to know whether the dicumarol prevented the characteristic disposition of the process to extend, but it is reasonable to assume that an anti-coagulant could accomplish such an effect.

The side-to-side anastomosis was performed in preference to an end-to-end type because of the relatively narrow lumen of the terminal ileum. Just enough ileum proximal to the ileo-colic junction remained to make the lateral anastomosis possible. The mesentery was resected to the root as gangrenous mesentery left behind would likely produce peritonitis.[3]

Finally, the removal of the appendix could be criticized as an unnecessary procedure as it was grossly normal and its excision did not aid in the management of the underlying condition.

5567 W. North Avenue.

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FALCIPARUM MALARIA

VICTOR DARWIN THOMAS, M.D.

MARCY, NEW YORK

Falciparum malaria in nine individuals, diagnosed by finding crescents during a four months residence in Southern Illinois in the year 1905, thirty-eight years ago, may provide considerable interest to all physicians and surgeons at this time.

Patients were from farms or residents of a soft coal mining town. The mine, homes, hospital, buildings and town site were the property of Mr. Joseph Leiter, who always inspected his special interest, the hospital and provided everything suggested.

Inspiration for research: typhoid fever frequently on death certificates from this and adjoining counties thirty-eight years ago. Opportunity first to prove absence of typhoid fever; second to bring positive diagnostic assistance to all; third to evaluate the administration of quinine in acid.

Anopheles were found hibernating in top corners of rooms of homes. In the rear of each residence was a pump. From the usual clear pool of water near the pump, larva were scooped up and placed in a bowl within a screened enclosure at hospital, after death of mosquito, hull was mailed to Washington, D. C.

Case record cards, some thirty on malaria, size five by seven and upon the back of each is inscribed, slide and serial number with date, many with colored drawings of plasmodium malaria. This paper will consider the nine persons in which positive crescents only were found and drawings made at time of examination. These case record cards were the individual property of the writer. Dr. Aderhold kept regular hospital and out-patient case records, therefore most of actual record of continued treatment will not be available, however this paper will be limited to diagnosis as made from blood slide.

Collection of blood: routine specimen from ear lobe of every person that came into the hospital.

Examination of fresh unstained specimen should be made when possible. The writer found positive crescent across a red cell with dancing pigment in center of crescent. This may be routine. The writer searched for three hours in a stained slide taken at same time before finding a single crescent. Search was continued for that length of time, under the supposition that crescents were there. See case No. 8; lab. No. 631, Nov. 21, 1905.

It would be more economical to examine a blood slide every three or six hours, day and night, than to follow other leads of typhoid, pneumonia, tuberculosis, etc. Treatment may be instituted after the first group of blood smears, which may save the life of the patient if the disease is falciparum malaria and such treatment will not be antagonistic to other diseases.

Inadequate treatment would be the use of sugar coated tablets. It is hoped that after quinine is again available, a law will make it illegal to manufacture coated quinine tablets.

Adequate treatment may well be by intravenous route for one or more doses. Our series of nine cases all recovered following administration of quinine sulphate dissolved in acid. Case 4 first seen at his residence in deep coma at night. No medication given. Wife was told that if patient lived through the night, to bring him to hospital in the morning. Patient walked to hospital in the morning and was put to bed. This was good advice. Had patient been given quinine while comatose one would have expected a sudden dissolution of parasites in the cerebral capillaries and death, or that products of red blood cells would block the kidneys and precipitate blackwater fever. This patient after hospitalization of five days went to work as a miner, returning ten days later reported working each day, crescents present, returning seven days later reported working each day, crescents continue present following twenty-two days of treatment. Modern treatment would have made every effort to make this patient a non carrier.

Two members of one family were infected with falciparum malaria. This happened in two families, (see cases number 5, 6, 7, 8). This fact may not be of diagnostic value where anopheles do not reside, however it helps the reader of this paper to understand that the finding of a positive crescent is a great satisfaction. Record shows case 8 had been sick with chills and fever in the previous three months. Also that a six year old sister died from supposed typhoid fever. This same case 8 required three hours search of stained slide before one crescent was found. Time for search would have been less, if writer had used a thick smear.

Diagnosis in these nine cases made only when a crescent was found. Ring forms were a lead, but no case in this series was recorded as falciparum malaria, unless a positive crescent was found. Writer would occasionally make smears every three hours day and night in hospitalized cases. The making of six or eight slides, allows several to be sent to physiological and pathological departments of nearest medical college, where some students will spend hours if you request a colored drawing. In one case my first reply stated "no parasites" however next mail stated "It contained large numbers of typical crescents (signed) W. A. Evans." This referred to our case 4, slide No. six hundred and four, marked H. This slide was taken ten days after patient discharged from hospital.

Nine cases listed below:

No. 1, No. 523 Sept. 11, 1905, L. W., age 21, teacher; one crescent in thirty minutes.

No. 2, No. 539 Sept. 18, 1905, L. C., age 18, farmer; two crescents in thirty minutes.

No. 3, No. 548 Sept. 20, 1905, F. B., age 30, farmer; one crescent.

No. 4, No. 580 Oct. 5, 1905, G. J., age 20, miner; fifteen crescents in one hour.

No. 5, No. 593 Oct. 14, 1905, I. T. age 16, home; two crescents.

No. 6, No. 594 Oct. 14, 1905, C. T., age 12, school; two crescents.

No. 7, No. 630 Nov. 14, 1905, N. B., age 14, school; one crescent in thirty minutes.

No. 8, No. 631 Nov. 21, 1905, M. B., age 9, school; one crescent in three hours.

No. 9, No. 643 Nov. 27, 1905, slide from Benton physician; four crescents.

SUMMARY

(a) Make blood slide from anyone needing medical or surgical service.

(b) Stain Azure two and Hochst Eosin used.

(c) Unstained specimen may be invaluable.

(d) Drawing and crayon coloring important.

(e) Extra slides for distribution.

(f) Chills, fever and other symptoms may be absent.

(g) Do not wait for Widal return. Case seven admitted to Zeigler Hospital as typhoid fever, but when a negative Widal was returned from Springfield State Laboratory, writer found crescent after thirty minutes.

(h) Crescents may be found in a person presenting no symptoms, the next day may be in coma, so consider a positive crescent as a bomb with malignant potentialities.

(i) Allow one hour on thick smears and three hours on thin smears for examination. Page 206 Journal American Medical Association September 25, 1943, suggests five minutes for thick and fifteen minutes for thin. If the writer had followed the brief examination period, one case, number four, would now be reported in place of nine positive cases.

A CASE OF PHENOBARBITAL POISONING

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B. K., aged 19 years was brought to the Cook County Hospital on April 19, 1944 in coma. After the patient had regained consciousness, a history was obtained from him that he had taken 39 grains of phenobarbital and that he was an epileptic. He had been recently discharged from the Navy and probably was despondent.

Physical examination revealed a well developed, well nourished young white man of approximately the given age. He did not respond to stimuli. Blood pressure was 130/100. Temperature 99.6° F. Pulse was 80, respirations 20. There were no apparent injuries upon the scalp. The pupils were equal and reacted to light. There was a small laceration on the lower lip. The tongue was dry and coated. No rigidity of the neck was noted and there was no adenopathy. The lungs were clear to percussion and auscultation. The heart was not enlarged and the rate and rhythm were regular. No masses were noted in the abdomen and no rigidity or tenderness. The liver, kidneys and spleen

were not palpable. The bowel sounds were normal. The reflexes were absent.

The stomach was washed and a catheterized specimen of urine was submitted for chemical examination which showed the presence of 0.8 mg. of phenobarbital per 100 cc. of urine. On the afternoon of admission, 36 mg. of picrotoxin and 2 cc. of mercupurin were given. Also 2000 cc. of dextrose in saline solution were administered intravenously. On the following morning the patient was still in coma. The temperature was 99.8° F. taken rectally. Respirations were good; chest was clear. The dextrose and saline solution was repeated and he was given 72 mg. of picrotoxin. Late in the afternoon the patient responded somewhat, opened his eyes, and said a few jumbled words. On the third day he responded a bit more to stimuli. The temperature rectally was 102.6° F. There were a few bronchial rales in the chest. The dextrose and saline solution were continued, also 1 cc. of mercupurin and 36 mg. of picrotoxin were given during the day. Chemical examination of the urine still showed the presence of phenobarbital. The patient was able to give his name and address on this day. On the fourth day his temperature was normal. He responded well to stimuli. Five per cent of dextrose and saline solution were given intravenously, as well as 33 mg. of picrotoxin. The urine still showed the presence of a barbiturate. On the fifth day the patient responded well but seemed very drowsy. The speech was slow but clear. The temperature was normal. Urine still showed phenobarbital. On the sixth day the patient was rational. He gave a history of having had epileptic seizures for twelve years with about one convulsion a year. He stated further that a physician in Arizona had given him a prescription for 150 1½-grain tablets of phenobarbital with instructions to take one tablet each night. The patient apparently had taken an overdose to "end it all." The urine still showed the presence of phenobarbital on this day. He was then subsequently removed to the Hines Hospital for further treatment.

By reason of the fact that this man had been taking phenobarbital daily, a depression of the central nervous system resulted and some of the barbiturate was retained in his system from the repeated therapeutic doses. Therefore when he decided to "end it all" we were dealing with slightly more than 39 grains of phenobarbital. He was given 174 milligrams of picrotoxin with recovery.

This case is reported to show the efficiency of picrotoxin treatment in barbiturate poisoning. Also to warn physicians that large quantities of barbiturates should not be dispensed to a patient at any one time, as illness and death by this type of drugs are on the increase. Further, barbiturates should be dispensed only upon the prescription of a physician and on the prescription "Non rep." (non repetatur: do not repeat) should be written. The promiscuous purchasing by the laity of this class of drugs must be stopped. A despondent or depressed person may obtain at present a sufficient amount to cause death with suicidal intent. If a ruling were enacted prohibiting the sale of more than 10 grains within seven to ten days, the period of depression in many instances will have been dissipated by the end of this time and a useful person restored to his community. (McNally, Wm. D.: J. Michigan State Soc., August, 1942). The sale of barbiturates to the layman is regulated by twenty-seven states, and should be subjected to a rigid control in every state.

GUNSHOT WOUND INVOLVING UPPER ABDOMEN AND LEFT KIDNEY

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CAPT., M.C., AUS

A 22-year old, white male, married, was admitted to the Station Hospital, April 30, 1943, forty-five minutes after he had suffered a through and through gunshot wound of the left upper abdomen. The bullet was of .30 caliber, fired at close range.

At the time of admission he was in deep shock and examination revealed the bullet wound of entry one-half inch below the left costal margin, anteriorly, in the mammary line. A bullet wound of exit was found one inch below the posterior costal margin, one and one-half inches to the right of the midscapular line. Blood pressure was 60 mm Hg, systolic; diastolic not found. A catheterized urine specimen was of port wine color.

An immediate laparotomy was performed, using intravenous Pentothal Sodium, and 500 c. c. of plasma was given intravenously. A left paramedian incision from the xiphoid to below the umbilicus was made and upon opening the peritoneum, large quantities of free blood were encountered. This was removed, and upon inspection of the stomach, a through and through perforation of this organ was found on the greater curvature. These perforations were closed with purse string suture and a further reinforcing Connell's stitch. The spleen was examined and found to be mushy, but not the site of violent hemorrhage. The left kidney was macerated, mushy, broken up, and tensely fluctuant, and first thought to be a hematoma; there was, however, little free blood in the kidney fossa. It was decided to allow the kidney to remain in place and to observe developments.

Blood pressure, pulse pressure and pulse rate were satisfactorily maintained throughout the operative procedure, the latter lasting approximately two hours. It was felt that the liberal use of plasma was the sole reason for the immediate excellent condition of this patient despite the long, shock-producing operation.

The wound of exit was given a thorough debridement, consisting of full excision of the skin and subcutaneous tissue, going one-half inch laterally in all directions and one inch deep. The wound of entry was included in the upper one-third of the celiotomy incision and was completely excised. The omentum had been pierced in five or six places, evidently having

been folded over on itself at the time of injury. The omental vessels were bleeding so profusely, that approximately one-third of the omentum had to be amputated. Individual ligation could have been performed, but it was believed that such a procedure would result in gangrene of this organ. A possible further complication, that of incarceration of bowel loops in the interstices, was thus avoided. Furthermore, the ligation of each vessel would have been time consuming, adding further traumatic shock to an already severely traumatized organism.

After inspection of the bowel from the ligament of Treitz to the ileo-cecal junction and the sprinkling of ten grams of sulfanilamide powder throughout the upper abdomen, the abdomen was closed in layers without drainage. Silk was not used except as a skin suture. At the termination of the laparotomy a transfusion of 500 c. c. of whole blood was given.

During closure of the skin it was noticed that the patient was developing an urticaria. No medication had been given other than morphine-sulphate, Gr. ¼; atropine-sulphate, Gr. 1/150, and plasma. It is not known by the author whether pentothal sodium acted as an urticaria-producing agent. Ephedrine sulphate, Gr. ¾ was used to combat the complication.

Postoperatively the patient's condition remained critical for four days, during which time cyanosis of the extremities developed, and a temperature of over 101 degrees (oral) was maintained. These reactions were treated by continuous oxygen, administered by tent. Continuous Wangensteen suction was started immediately postoperatively, and fluid balance was maintained by the daily intravenous administration of 4000 c. c. of 10% dextrose in normal saline solution. A moist tongue, lips, skin, and satisfactory urinary output were secured by these measures. The urine continued bloody at all times, but there was a gradual lightening of color until May 15, when normal colored urine was passed and only microscopic erythrocytes were found thereafter in voided specimens.

It was decided to treat the perforated stomach as though a freshly perforated ulcer were present. Sippy diet without medication was begun on the fourth postoperative day and a regular diet was substituted on the fifteenth postoperative day.

The incision healed per primam and the sutures were removed on the tenth postoperative day.

Sodium sulfadiazine was given intravenously daily for four days, postoperatively, and on the fifth postoperative day sulfadiazine, one gram every four hours, was given by mouth. The drug was discontinued after a normal temperature had been maintained for three consecutive days.

The patient was up and out of bed in a chair when on the twenty-third postoperative day he was suddenly seized with nausea, vomiting, and recurrent severe upper abdominal pain, cramping in character. Rapid distention of the abdomen occurred. A flat x-ray film of the abdomen revealed an obstruction high up. Wangensteen nasal suction was immediately instituted and the colon emptied by one-two-three enemata. Shortly afterwards an exploratory laparotomy was performed under general ether anesthesia, using a right paramedian incision from the xiphoid to below the umbilicus. The typical picture of acute intestinal obstruction, mechanical type, was found. Upon opening the peritoneum there was a gush of port wine colored fluid. Palpation of the intra-abdominal surfaces revealed the adherence of a six-inch portion of the jejunum to the peritoneal aspect of the left paramedian incision. This portion of the bowel was released by blunt dissection and the ragged edges of the bowel at the site of adherence were folded over, using fine catgut suture on an atraumatic needle, the suture line running longitudinally. An indirect transfusion of 500 c. c. whole blood was given on the operating table. The abdomen was then closed in layers, using catgut suture throughout, and two grams of sulfadiazine were sprinkled through the upper abdomen. The postoperative course remained smooth and uneventful, and the patient was up and around on the eleventh postoperative day, free of sutures and with a wound which had healed per primam. The Wangensteen drainage was completely removed on the fourth postoperative day.

On June 6, 1943, a P.S.P. test was done and 52% of total dye was eliminated. The N.P.N. value was found to be 34 mgm percent on the same day. Urinalysis showed albumin ranging from 4 plus on admission to consecutively negative tests on June 25, 1943.

X-ray examination and intravenous pyelograms done on June 18, approximately six weeks after injury, was unsatisfactory due to gas shadows and on June 28, the patient was returned to duty, although a series of erythrocyte and hemoglobin estimations showed a moderate degree of anemia.

On July 18, 1943, the patient was again admitted to the hospital, complaining of weakness, vertigo, nausea and sharp cramping pain low down in the left portion of the abdomen. Since discharge from the hospital in June, 1943, the patient had noticed that his stool had become like clay. On August 8, 1943, ova of endamoeba coli and endamoeba hystolytica were found. Carbason treatment was begun and the stool specimen became negative and remained so on repeated examinations.

On July 21, 1943, intravenous urography was repeated and revealed a normal right kidney, but the inferior and medial portions of the left kidney did not fill and the left kidney was fixed in position. On July 30, 1943, a barium meal was given and confirmed the results of the inspection made at the time of the second celiotomy, i.e. a normal stomach and duodenum, despite a through and through puncture wound involving the anterior and posterior walls of the greater curvature. The only abnormality was marked spasticity of the ascending and transverse colon. The patient was returned to duty August 13, 1943, with a blood count of 5,480,000 and a hemoglobin of 104%; eosinophile count revealed one such cell.

The patient continued to do regular military duties until December 18, 1943, when he was again admitted

to the Station Hospital complaining of sharp, intermittent pain in the left flank, and nocturia one to two times a night for the past three months. Examination on December 18, was negative except for facial acne and a positive left Murphy punch sign.

Prior to this admission a competent urologist had been added to the staff of the Station Hospital, so, on December 20, 1943, bilateral retrograde pyelograms were made. The x-ray findings, following injection, showed a normal right kidney; normal superior calyx, left, with total absence of the mid and inferior calices. The remainder of the examination was negative. The blood counts were within normal limits and repeated stool examinations were consistently negative for ova and parasites. The patient weighed 135 pounds on admission; in July, 1943, the patient weighed 120 pounds.

COMMENT

It is not the usual luck of an operator to get a chance to view a human stomach a second time, following a primary through and through gunshot wound. The surfaces were smooth, not puckered and the scarring was minimal. Adhesions were not seen at the sites of the puncture wound. It is also not the usual phenomenal luck of an operator to be allowed to palpate a kidney a second time following a gunshot wound of that organ. At the first palpation (at the time of primary laparotomy) the left kidney was tense and large and felt like cold, crusted cornmeal mush. At the second operation the kidney was surrounded by dense firm masses of adhesions and the renal outline was remarkably indistinct.

The author was never certain, until benign clinical conditions had asserted themselves after the primary laparotomy, that he had not missed multiple pinpoint perforations of the ileum and jejunum because multiple subserosal hemorrhagic areas were seen — and not touched. The liberal use of sodium sulfadiazine, intravenously, and sulfadiazine per os, carried the patient through the critical days and this writer reverently doffs his cap to the discoverer of this magic compound.

Morphine and atropine have lately been given to this patient without any ensuing urticaria. Therefore, it is reasonable to assume that the urticaria noticed during the first laparotomy was due to the plasma injected.

The patient suffered severe psychological shock during the time of his treatment for amoebiasis in that his wife ran off and left him, their six-months old child being cared for by the paternal grandparents. It is thought that this patient has had a sufficiency of demoralizing incidents occur in his recent years to ensure his right to his present apathetic, melancholic facies and inert disposition. He is, at the present writing, being subjected to high-calorie, high-vitamin diet, with additional vitamin products given by mouth, and rest. He is now an active member of our rehabilitation program.

A SIMPLE QUALITATIVE TEST FOR SULFONAMIDE DRUGS IN URINE

In usual sulfa drug therapy from 200 to 350 mgm. per 100 cc. of the substance is excreted in the urine. Upon addition of 1 cc. of a 2% solution of paradimethylaminobenzaldehyde in 20% hydrochloric acid, to the urine of individuals receiving this therapy, a precipitate forms immediately.

If the specimen should contain less than 25 mgm. % a yellowish green color appears. In urine that has a concentration above 25 mgm. and less than 250 mgm. %, a yellow precipitate is seen. Over 250 mgm. % will produce a heavy orange precipitate. All of the concentrations given are in terms of free sulfonamides; the acetylated form is not detected by this method.

The test is best performed by the addition of 1 cc. of the paradimethylaminobenzaldehyde solution to 10 cc. of urine which has been cooled to room temperature. The method is unsuitable in patients who are jaundiced or contain abnormal amounts of urobilinogen in the urine.

Several compounds will give positive reactions, but these are never given in sufficient quantities to produce a positive reaction when excreted in the urine.

The testing solution is kept best in a dark container. The aldehyde may be purchased from the Eastman Kodak Company of Rochester, New York.—*Raymond W. Monto, M.D., Journal of the Michigan State Medical Society, July,* 41: 569, 1942.

ANTS SPREAD DYSENTERY

Ants that get into the sugar bowl or other food, usually considered a harmless pest of tropical regions, are now incriminated as villains that probably spread dysentery, one of the disease scourges of the tropics which are a special danger to Armies fighting in tropical regions.

Experiments in which ants actually did carry dysentery germs on their feet, leaving a 24-hour trail of the germs, wherever they walked, are reported by Dr. Sophie Deller Griffitts, of the School of Tropical Medicine at San Juan, Puerto Rico.—*Science News Letter, September* 26, 1942.

Physical Medicine Abstracts

John S. Coulter, M.D.

POSTURAL ADJUSTMENTS IN CONVALESCENCE AND REHABILITATION

F. A. Hellebrandt, Section of Physical Medicine and the Department of Physiology, University of Wisconsin, Madison.

FEDERATION PROCEEDINGS, 3;3;245
September, 1944

No one has yet succeeded in demonstrating that poor bodily mechanics augment energy metabolism significantly. Increased rotatory stresses secondary to the assumption of mechanically poor postures are equilibrated with ease. To correct such stances would require the strong phasic contraction of the antigravity extensors. Indeed, when "poor" postures are examined from a biologic rather than a mechanistic viewpoint, they appear to be conmpensatory. They are the stances requiring the least energy for their maintenance.

Two additonal arguments have been used to condemn mechanically poor postural adjustments. Since they throw the weight of superimposed parts on structures not suited to maintain them, they may give rise to a type of microtrauma which may lead to pathological deviations from the normal which may be associated with pain. Thus the application of mechanical supports or devices aimed at a re-distribution of weight, often relieve incapacitating discomfort. Many so-called poor postures are disfiguring without being the source of pain.

Many years ago Goldthwaite postulated an anatomico-mechanistic basis for chronic ills related to the visceral functions. The literature on this subject is voluminous and uncritical. The flat chest, abdominal visceroptosis, and crowding of the pelvic organs of the individual with poor posture are credited with a leading role in the pathogenesis of innumerable diseases. This concept is based upon more or less tenuous evidence without regard for the wide margins of safety under which all organ systems function, and the paucity of proof that the anatomical position of a viscus is a valid criterion of the adequacy of its physiological behavior.

The rehabilitation of the postural adjustments of the sick and injured gives rise to several fundamental problems which have yet to be explored. Those secondary to traumatic lesions of the bony levers and their articulations are too individual for generalization. The orthopedic surgeon, the skilled craftsmen who construct orthopedic appliances, and the physical therapy technician form a team well equipped to handle these purely mechanical problems. How amenable postural adjustments are to correction in patients suffering from functional diseases or psychosomatic disturbances is unknown. Long hospitalization because of debilitating intoxications, infectious, deficiency, or metabolic diseases have a uniform effect on the postural adjustments. Inactivity is invariably associated with loss of strength and tone.

The technique of muscle re-education is a topic of current controversy. The individuation of desired skills from mass responses is the natural method of motor learning. The newer approach consists of the meticulous building of increasingly complex patterns of movement from the carefully learned primary actions of isolated muscles or small groups.

Poor posture was credited with responsibility for the breakdown of men under the stress of battle conditions during the last war. This gave rise to considerable attention to the problems of body mechanics. As a result posture training has been practiced extensively in the schools of

this country during the interim between the last and the present war. Whether or not this has had a telling effect upon the bearing of our youth awaits full publication and study of the medical data of selective service boards.

THEORETICAL AND EXPERIMENTAL ASPECTS OF SURGICAL REFRIGERATION

Frederick M. Allen, M.D., New York City, N.Y. In THE CANADIAN MEDICAL ASSOCIATION JOURNAL, 51; 3; 225 September, 1944.

This general or systemic hypothermia cannot be further discussed because our topic centers around local hypothermia. The reaction when any part of a warm-blooded animal is exposed to cold is both complex and variable according to many modifications of degree and kind. The well-known vasoconstriction with pallor gives way to vasodilation, and the chilled part is apt to be bright pink from this cause and from the high oxygen content of the blood. Increased vascular permeability, with passage of fluid into the tissues, is regarded as a defensive process reducing the thermal conductivity of the tissues, and in extreme form it is a factor in the oedema found in frost-bite and immersion-foot.

The effects of a tourniquet depend on the material, breadth, tension, time and temperature. Hard or inelastic materials, such as wire, cord, fabric or stiff rubber, create troubles either by looseness or by crushing of tissue. Breadth adds to the area of compressed tissue without reducing the degree of tension necessary for stopping blood flow. For these reasons we use two superimposed turns of a ½-inch soft rubber tube, until an ideal air-pressure instrument may be found. The tension should theoretically be the minimum which will positively stop circulation. In practice, errors are usually on the side of insufficient tension. The very strong tension which is necessary in the leg seems to cause no harm, even in advanced arteriosclerosis. Paralysis is more easily produced in the arm, and padding may be helpful to prevent direct crushing of the principal nerves against bone. The time factor has been grossly misjudged by surgeons in the past. The limbs of animals and apparently also of human beings can survive 12 to 15 hours of complete asphyxia at ordinary room temperatures.

Refrigeration with a tourniquet has mainly been used and is most familiar as an anaesthetic for amputations in poor-risk patient.

Passing on to another surgical problem, namely thrombosis and embolism, I wish to venture some new suggestions regarding treatment. The benefits of refrigeration for preventing or retarding gangrene and gaining time for development of collateral circulation and for constitutional recovery from a crisis are illustrated in the embolic cases of Crossman and co-workers, and the reports of Mock on traumatic thrombosis in civil life, and of Bowers, in soldiers.

A NEW NEUROSURGICAL INSTRUMENT

A Combined Suction and Electrocoagulation Tip

Henry T. Wycis, M.D., Instructor in Neurosurgery, Temple University Hospital, Philadelphia, Pennsylvania. In THE AMERICAN JOURNAL OF SURGERY, 67; 1; 139, October, 1944.

This instrument was designed to coagulate bleeding points quickly and effectively, particularly those in the depths of a tumor bed. Not infrequently, the operator encounters a serious bleeder which fills the cavity and obstructs the field of vision. The cavity must be sucked dry to locate the bleeding point which is then grasped with a bayonet forceps. The operator then usually asks the assistant to touch the forceps with the electrocoagulation tip. This maneuver must be executed quickly and requires proper timing between operator and assistant. This is not always successful as many neurosurgeons can testify.

The instrument presented combines suction and electrocoagulation so that the operator, with a single hand, can carry out this maneuver. Obviously, this releases one of the valuable hands of the assistant. With suction on the bleeding point, the vessel can be sucked up into the opening of the tip, rendering the field dry. Simultaneously, the foot switch allows the electrocoagulating current to coagulate the vessel drawn up into the suction tip opening. Should this be undesirable, the instrument may be simply touched to the bayonet forceps, which can grasp the vessel in a dry field.

ELECTRIC SHOCK THERAPY IN A GENERAL HOSPITAL

Thomas Johannes Heldt, M.D.; Daniel David Hurst, M.D., and Nicholas Peter Dallis, M.D., Detroit. In ARCHIVES OF INTERNAL MEDICINE, 73;4;-340, April 1, 1944

There has been sustained interest in the shock therapies since 1932, when Sakel introduced insulin coma for schizophrenia. Its use for several years was rather empiric, and today it is used only in selected cases. In 1935 Meduna added metrazol convulsive therapy to the treatment of schizophrenia. It was soon found, however, to be most effective for the depressed states, particularly the reactive depressions. It was heralded as a specific for the depressions but was frowned on because of its orthopedic complications and the fears patients expressed toward it.

The purpose of this paper is to review the present status of electric shock therapy and to present an additional 100 cases.

SUMMARY AND CONCLUSIONS

General hospitals with neuropsychiatric facilities can utilize electric shock therapy to advantage. In a general hospital of six hundred beds 100 patients were successfully treated over a period of eleven months.

Electric shock therapy has largely replaced metrazol convulsive therapy. It appears to be almost a specific therapy in the treatment of the depressions whether they are endogenous, involutional or reactive or depressions with mixed components. The therapy is not of great value for schizophrenia, although it does seem to make many of the patients more manageable. Its use for the manic-depressive psychoses is primarily to facilitate management. The use of this therapy for frequent recurrences of this psychosis is questionable. For the psychoneuroses the results are rather discouraging, probably because the underlying determinant must be removed to relieve the psychoneurotic state properly; electric shock is judged to be of some benefit in facilitating the psychotherapeutic approach.

Curare was used routinely in the treatment of our 100 patients. The only serious complication was compression fracture of the thoracic portion of the spine. This occurred in only 2 cases, and in 1 of these the fracture occurred when the curare was unwittingly omitted after it had been used in earlier administrations.

ARTIFICIAL RESPIRATION

The Need for a Greatly Increased Rate in Asphyxia.

P. R. Tingley, M.B., Ch.B. In BRITISH MEDICAL JOURNAL, No. 4367: 367, September 16, 1944.

In every method the present rate is slow. Four seconds is a long time when applied to one respiratory cycle. Indeed, in most methods it has been necessary to include a pause of one to two seconds in each cycle in order to keep the rate down to the so-called normal. In Schafer's the interval is at the end of the inspiration; in Eve's it is at the end of the expiration.

In Schafer's method it is difficult to occupy fully even three seconds with the actual movements necessary for one cycle.

Silvester's method, because of the nature of the movements necessary, takes more time to perform than Schafer's, and a rate of about 45 times a minute would seem to be the efficient maximum. My limited experience of Eve's method does not permit me to suggest the most suitable rate, but the same rule holds true —"as fast as possible consistent with no sacrifice in volume". — and I have little doubt that the efficient rate of rocking could at least be doubled, and probably much further increased.

CONCLUSION

The respiratory requirements are so great in all cases of asphyxia which require artificial respiration that, in such cases, the adoption in all methods of as fast a rate as possible, consistent with efficiency, must result in the quicker resuscitation of the patient, thereby enhancing the chances of life.

EFFECTIVENESS OF ULTRAVIOLET IRRADIATION OF UPPER AIR FOR THE CONTROL OF BACTERIAL AIR CONTAMINATION IN SLEEPING QUARTERS

Preliminary Report by R. Schneiter, A. Hollaender, B. H. Caminita, R. W. Kolb, H. F. Fraser, H. G. DuBuy, P. A. Neal and H. B. Rosenblum. In THE AMERICAN JOURNAL OF HYGIENE, 40; 2; 153, September, 1944.

Ultraviolet radiation (2537A) has been reported to be effective for the control of airborne contagion in operating rooms and hospital wards when used directly over the operating

table or as light barriers in the wards. Ultraviolet irradiation of the upper air of children's nurseries and of school rooms has also been reported to be effective in reducing the incidence of air-borne infections among the populations concerned without subjecting them to possible injury from direct ultraviolet rays. This work has been thoroughly reviewed (2, 4, 6, 9, 10) and need not be discussed further here.

No reports have appeared on the use of ultraviolet irradiation for the control of air-borne infection in sleeping quarters. At a time when large numbers of people are being congregated under conditions considered to be conducive to the spread of air-borne infection, it seemed desirable to try to determine the effect of ultraviolet irradiation upon the bacterial flora of large-scale sleeping quarters and upon the incidence of air-borne infections among the occupants.

SUMMARY

During the period from July 1st, 1941 to July 1st, 1943, an investigation was carried out on the effectiveness of upper air ultraviolet irradiation for the control of air-borne microorganisms and air-borne infections in the sleeping quarters of 4 dormitories at the National Training School for Boys, Washington, D. C. Ventilation depended upon the opening or closing of windows.

Two of the dormitories were equipped with ultraviolet sources for upper air irradiation and the remaining two dormitories served as controls. A total of 90,000 milliwatts of 2537A radiation was provided in each irradiated dormitory for 18 months of the study. The radiation at bed level was found to vary from 0.5 to 3.0 ergs per cm^2 per second when all lights were clean and in operation. Therefore, it may be said that at no time did the intensity of ultraviolet radiation at bed level exceed 5 ergs per cm^2 per second.

Bacteriological studies were made at monthly intervals. Nasal swab cultures were taken from 10 boys in each of the 4 dormitories each time that studies were made in order to ascertain the predominating type of nasal flora of the inmates. Air samples were taken with the bottle device and by the exposed plate method at two locations in each dormitory, once in the early evening and twice in the early morning. Intermediate air samples were obtained during the early evening from 9:30 to 10:30 P.M. soon after the inmates had retired, the lowest counts in the early morning at 5:15 to 6:15 A.M. after an extended period of quiet, and the highest counts from 6:15 to 7:15 A.M. during cleaning and bed-making operations, or during the period of maximum human activity. The air-sample counts were thus roughly proportional to the activity within each dormitory at the time of sampling.

A bacteriological examination was made on floor-dust samples collected in each dormitory during cleaning operations. The incidence of microorganisms in the floor-dust samples was higher in the spring and summer months than in the fall and winter months. There was no consistent correlation between incidence of fiable microorganisms in floor-dust samples and in air samples collected during cleaning and bed-making operations.

The predominating types of microorganisms encountered in nasal swab cultures, air samples and floor-dust samples throughout the major portion of this investigation were staphlyococci. However, during the 5-month period from June to October, 1942, streptococci predominated in the majority of the cultures and samples.

The data obtained during this investigation indicate that ultraviolet irradiation of the upper air of sleeping quarters effected a reduction in the numbers of viable microorganisms in the air, and, to a lesser degree, in floor-dust.

The incidence of air-borne diseases, as judged by hospital admission records, in nonirradiated and irradiated dormitories showed no significant difference under the conditions of this experiment. The variation among dormitories was so great that no statement can be made concerning the influence of ultraviolet light upon the incidence of air-borne infection insofar as these experiments are concerned.

Industrial Health

Committee On Industrial Health — Frederick W. Slobe, Chm., 2024 South Western Ave., Chicago, Frank P. Hammond, H. A. Vonachen, R. I. Barickman, C. O. Sappington, Milton H. Kronenberg.

GENERAL MEDICAL COVERAGE FOR INDUSTRIAL EMPLOYEES*

Recently in THE JOURNAL a series of articles was published describing some of the variations in approach which representative industries have made to the problem of general medical coverage for their member-employees. The Council on Industrial Health, in recognition of this trend, has adopted a statement of policy which should be helpful to physicians and medical societies faced with these developments. This statement, as approved by the Board of Trustees of the American Medical Association, is as follows:

Pressure is being placed on industry by management and by labor to extend the health services for which it is responsible. It has been recognized that industry has certain responsibilities in providing medical care for occupational injuries and diseases. These responsibilities have been extended to include various services in the field of preventive medicine. It is now proposed that industry provide over-all medical care for employees and their dependents, the term medical being used in a broad sense to include diagnosis and treatment in various special fields. The Council on Industrial Health believes that a statement along the following lines bearing the stamp of approval of the American Medical Association will be of assistance to physicians who are now confronted with this situation in many areas:

1. The principles on which medical care plans should be based have been defined by the House of Delegates of the American Medical Association. In developing medical care plans, industry should be in agreement with the local county medical society as to the conformity of such plans with these established principles. Plans of this nature should include provision for health maintenance programs.

2. Because of the essential medical nature of such plans, their policies should be directed and the medical phases should be controlled by the medical departments of industry.

3. The attention of industrial management should be directed to the place of the physician in industrial organization. The expanding importance of health activities in industry demands that the physician be responsible directly to top management and that activities relating to health be centered in and directed through the medical department.

*J.A.M.A. Nov. 11, 1944

UNJUSTIFIABLE ABSENTEEISM

Since the occurrence of the manpower shortage, much study has been directed towards the various factors concerned in industrial absenteeism. This Department has discussed this matter before, but there is one pertinent factor which we would like to re-emphasize.

Absenteeism in industry seems to rise in direct proportion with the income, hours of work, and availability of jobs for the employee. Since only physicians can decide whether absenteeism is justified due to illness or injury, we are glad to reprint a recent editorial from the Journal of the A. M. A.:

MEDICAL CERTIFICATES AND WAR PRODUCTION*

In recent years medical certificates have been required for fuel and food rationing, public health disease prevention programs, food handler control, marriage laws, school regulation and sickness insurance. The good name of the medical profession is sometimes jeopardized by too lenient compliance with appeals for certificates from patients who have little or no real basis for requesting them. This problem is now especially concerned in present efforts to use limited manpower to its fullest extent in war industries.

Production of munitions would be far from

*J.A.M.A. Nov. 11, 1944

completed even if Germany should capitulate this month. According to War Department announcements, production of heavy trucks, large shells, bombs, rockets, smokeless powder, heavy duty tires, superbombers and large artillery is behind schedule for 1944. These activities must be continued for many months to come if urgent orders from overseas are to be met. The major problem in the production of these critical items is lack of manpower. Lack of labor reserves in many communities, excessive absenteeism and a high rate of labor termination are the controlling factors in producing enough munitions on time. Certain ordnance plants have reported absenteeism amounting to twenty days annually per man and an annual labor turnover of 100 per cent. Many of these absentees and job terminators can be replaced only with the greatest difficulty.

Many observers believe that the principal underlying cause is the too common attitude that the war is almost over. The feeling of urgency is gone. Liberal disability benefits contribute to these delays. Others who drop out for a few days of hunting or to get in the crops cheerfully extend an unjustified absence and cover up by alleging illness on return to work. Job quitters likewise are more common than ever because of their understandable desire to obtain more permanent work before present jobs terminate.

Industry, labor organizations, the War Manpower Commission and other interested agencies have instituted an aggressive plan of action to control the ordinary causes of absenteeism and labor turnovers by giving attention to such factors as housing, transportation, shopping facilities, cafeterias, child care and impressing the workers with the urgency of staying on the job.

Illness, both alleged and real, as a frequent cause of absenteeism and work termination is probably the most difficult problem to control by lay agencies. The government and its contracting agents customarily require medical certificates to cover an absenteeism alleged to illness or a labor termination attributed to reasons of health. The medical profession is then put under pressure by thoughtless persons who see little harm in collecting disability benefits or in obtaining better jobs on pretext of illness. They fail to see the cumulative results of hundreds of thousands of such acts on critical war production.

Responsibility rests squarely on the physician to act as prosecutor, defense attorney and judge before issuing such a certificate. He fails himself, his profession and the war effort if certificates are issued without due cause. The Army is prepared to cooperate closely with physicians in industry in order to accumulate facts about alleged illness of an employee and the possible effects of the working environment on the employees' health. Standard practices for the control of health hazards in war industries are available. The medical records of employees and diagnostic services of these plants are generally available to private physicians in troublesome cases and should be utilized fully.

The medical profession is never out of the public eye. The ability of any group of workers persistently to evade the obligations of their jobs through easy availability of medical certificates must inevitably arouse unfavorable public reaction. The War Participation Committee of the Massachusetts Medical Society has established a system for review of medical certificates in that state worthy of general consideration. Every physician must assure himself that each medical certificate is exactly what it implies — a certified statement of facts based on careful examination and disinterested judgment.

In the July 1944 Industrial Hygiene News Letter, published by the Industrial Hygiene Division, U. S. Public Health Service, Bethesda, Maryland, the following articles appear, relative to various chemical hazards in industry.

LABELLING OF CHEMICALS

As one means of controlling industrial exposures to hazardous chemicals, the Surgeon General of the U. S. Public Health Service has made agreements with the chemical manufacturing companies regarding the labelling of certain dangerous chemicals handled in interstate commerce. To facilitate arriving at these labelling agreements, the Chemical Products Agreement Committee was formed under the chairmanship of the Chief of the Industrial Hygiene Division and included in its membership the Chief Chemist, Health Division, U. S. Bureau of Mines Experimental Station, the Chief of the Indus-

trial Research Laboratory, National Institute of Health, and the Executive Secretary of the Manufacturing Chemists Association. To date, labelling agreements have been made regarding six compounds; namely, methanol, benzol, aniline, carbon tetrachloride, carbon disulfide and chlorinated diphenyls.

The Chemical Products Agreement Committee met with representatives of the American Industrial Hygiene Association in Bethesda on July 12, 1944, to discuss standardization of labelling of other chemical products. A revised draft for classification of chemical products for precautionary labelling, prepared by the Labels and Precautionary Information Committee of the Manufacturing Chemists Association, was presented. This was a classification of hazards rather than of chemicals. Phraseology of the various labels to be used must be determined next. Comments and observations on the preliminary draft will be submitted to the Manufacturing Chemists Association.

In discussion of the complaint that chemical formulas are not included on the labels of trade name products, it was decided that the "Trade Names Index" now being prepared by the Field Operations Section of this Division, will help solve this problem insofar as official industrial hygienists are concerned.

The problem of labelling cadmium plated materials was discussed and it was decided to supplement any labelling program by educational measures. The consultant, Metals Branch, Conservation Division, War Production Board, will be requested to publish abstracts of publications regarding cadmium in electroplating trade journals, calling attention to the hazard to workers with cadmium plate as well as the users of cadmium utensils.

CHLORINE GAS HAZARDS IN ALUMINUM FOUNDRIES

The chlorine hazards in aluminum founderies have been shown by a study made in California to be threefold.

(1) Aluminum readily combines with the oxygen in water, releasing hydrogen gas which collects in the interstices or porosities of aluminum in the melting pot. This gas is generally removed by passing chlorine through the molten metal so that the hydrogen combines with the chlorine to form hydrochloric acid. The excess chlorine is discharged into the atmosphere above the melting pot, unless removed by an exhaust hood, but the hood must be properly designed, or only a portion of the gas is removed.

(2) The chlorine gas is introduced into the bottom of the melting pot by pipes connected to the tanks by short lengths of rubber hose. These pipes may become clogged as the chlorine tanks are moved from pot to pot. As the full tank pressure may exceed 100 pounds per square inch, the rubber hose may leak or burst. Moreover, a chlorine tank may burst from overheating or from being tipped over, causing a fatality.

(3) Gas burners under the melting pot are frequently unvented, so that carbon monoxide concentrations may be as high as 50 to 75 parts per million and, as phosgene is readily formed from a combination of carbon monoxide and chlorine, there is danger of both carbon monoxide and phosgene poisoning.

Proper protection of the workmen requires a rather complicated system of control, consisting of venting of all gas burning devices, as well as much greater supervision of the method in which chlorine is handled.

WELDING FUMES FROM STAINLESS STEEL WELDING RODS

A study was made in California of the types of fumes to which welders are exposed as the result of using coated stainless steel welding rods in the manufacture of amphibian tanks. Results of analyses of samples indicated not only high concentrations of chromate, as was expected, but also high concentrations of fluoride, total fume and oxides of nitrogen. In view of the fact that complaints of gastro-intestinal disturbances were more common than of respiratory irritation, these findings indicated that this non-specific subjective reaction might be due to the simultaneous occurrence of several irritating ingredients, rather than the specific effects of any one of them individually.

VITAMIN SUPPLEMENTS ARE FOUND OF NO VALUE FOR NORMAL PERSONS

Their Administration To Group Of Students Consuming Usual American Diet Had No Demonstrable Beneficial Effect

"Administration of vitamin supplements to a group of apparently normal persons, consuming the usual American diet, had no demonstrable beneficial effect," Julian M. Ruffin, M.D., and David Cayer, M.D., Durham, N. C., report in *The Journal of the American Medical Association* for November 25. The study was conducted at the Duke University School of Medicine at the request of the Office of the Quartermaster General, U. S. Army. Volunteer medical students and technicians were used as subjects.

"Our purpose in this study," the two physicians say, "was to obtain impartial and intelligent daily records of the effect of various vitamin supplements on apparently normal persons. It was felt that in such a study medical students would be not only cooperative but critical as well. The duration of the experiment was set arbitrarily at thirty days. In our experience, patients having frank deficiencies recover rapidly when specific therapy is instituted. It is reasonable to assume that a subclinical deficiency should respond just as promptly to treatment, and therefore it was felt that nothing would be gained by prolonging the experiment.

"All of the subjects were consuming the usual American diet and apparently were in good health. Before beginning the experiment 20 of them, selected at random, had vitamin studies made, including the determination of carotene, vitamins A and C, nicotinic acid, thiamine hydrochloride, riboflavin, pyridoxine, pantothenic acid and prothrombin time. All of these were within normal limits."

In the introduction to their paper, Drs. Ruffin and Cayer explain that "At the present time the use of vitamins is widespread throughout the country, not only in the treatment of disease, but also by apparently normal persons. While no one would question the employment of vitamin therapy in frank deficiency diseases or even in suspected deficiency states, still one wonders if the indiscriminate use of vitamins, sold over the counter to people who have no obvious disease, is justified. It has been argued that such vague symptoms as weakness, nervousness, fatigability and insomnia can result from a vitamin deficiency and therefore, when such symptoms appear, vitamin therapy should be instituted. Recent surveys, with the recommended daily allowances of the National Research Council as a guide, have indicated that the average American diet often is not adequate to maintain optimal nutrition. This has been used as an additional argument for the administration of vitamins to people without obvious disease on the assumption that they may actually have a 'subclinical deficiency' of which they are not aware. It has been implied that, even when no demonstrable deficiency exists, one's sense of well-being and ability to perform work can be improved greatly by the addition of vitamins to the diet. As pointed out by the Councils on Food and Nutrition and on Industrial Health there is at present no conclusive evidence to substantiate this point of view. . ."

All of those participating in the study continued their usual activities and ate essentially the same diet. Each subject was given a work sheet to be kept daily and was instructed to record his impression as to the effect of the medication he was taking on the appetite, energy and "pep," general health, "gas" or indigestion nausea, vomiting, the number of stools per day, abdominal pain and weight. No subject knew what he was receiving or to what group he belonged. At the beginning of the experiment they were told that one group would receive placebos (sugar pills) and the remainder various vitamins. There were 200 subjects selected for the investigation. Reliable data were obtained from 182. The subjects were divided into five groups. Those in group A received 3 vitamin tablets per day and 6 liver extract tablets. Those in group B received 3 vitamin tablets per day and 6 yeast tablets. Those in group C received 3 vitamin tablets per day and 6 placebos per day. Those in group D received 3 vitamin tablets per day and those in group E received 6 placebos per day. The supplements used were of the same size and appearance so that identification was difficult, if not impossible, without chemical analysis.

The vitamin tablets, which were the usual government issue and furnished by the Office of the Quartermaster General, contained 2,500 U. S. P. units of vitamin A, 200 U. S. P. units of vitamin D, 1 mg. of thiamine hydrochloride, 1.5 mg. of riboflavin, 27.5 mg. of ascorbic acid, and 10 mg. of nicotinamide.

In analyzing the results, it was found that in regard to appetite 6 in group A reported improvement and 31 no change. In group B, 3 reported improvement, 32 no change and 3 a decrease. In group C, 9 reported an improvement, 24 no change and 2 a decrease. In group D, 5 reported an improvement, 28 no change and 2 a decrease. In group E, which received only the placebos, 5 reported an improvement, 29 no change and 1 a decrease. About the same ratio between the various groups was reported in regard to the other classifications.

Specialists Outnumber General Practitioners—As of January 31, 1942, 85,964 of these were in general practice and 90,227 specialists (including those classified as fully qualified specialists devoting their full time to a specialty and physicians who devote only special attention or a part of their time to some special branch of medicine). The ratio of full-time specialists to special attention physicians is about forty-three to fifty-seven.

The total number of physicians engaged in full-time appointments was found to be 7,216. Of these, 2,816 hold teaching appointments, 910 are engaged in full-time research work, 1,179 hold executive positions and 2,243 are engaged in full-time work in industry. Many of the latter are not actually caring for the sick or injured though they are contributing to the health of the industrial population.—*Minnesota Medicine.*

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

★ WAR SERVICE ACTIVITIES ★

ADAMS COUNTY

Capt. H. O. Ryan, 98th Evac. Hosp., APO 926, c/o Postmaster, San Francisco, former Quincy physician writes that he is now located somewhere in the Dutch East Indies. Captain Ryan is a member of the Adams County Medical Society, and expresses his appreciation for the Society's monthly Bulletin which is sent to him. He states that he is in charge of a tropical disease ward (mostly malaria, deruge and scrub typhus); also that there is absolutely nothing to buy on the island except postage stamps.

Capt. Carl F. H. Pfeiffer is another widely-known Quincy physician in the service, having been a member of the Blessing Hospital staff before his enlistment in the Army Air Force December 2, 1942. He is now located in southern England in that section which has been hard hit by robot bombs flung across the channel by Germany, and states that one bomb may damage as many as 150 or more homes, but that the number of casualties is miraculously small compared to the extent of damage done. Capt. Pfeiffer has been overseas since the first of the year.

Capt. C. A. Hendricks, M.C. and Lt. George Borden, M.C. have both written to Dr. R. A. Harris, Quincy, Illinois, Editor of the Adams County Medical Society Bulletin, and expressed their appreciation and thanks for the Bulletin. Captain Hendricks is in England. Lt. Borden's location is not known, except that his APO is New York.

Maj. S. R. Hoover of Quincy has returned to this country after having served one year in Africa with the medical corps. He has been sent to Miami, Florida, for reassignment.

Maj. Walter Stevenson, Jr., M.C., of Quincy is in charge of plastic surgery at McCloskey General Hospital, Temple, Texas. He writes that casualties are flown in direct from points abroad for plastic surgery care.

CLAY COUNTY

L. L. Hutchins of Clay County, Captain in the Medical Corps of the U. S. Army is on convoy duty. M. H. Parker of Flora, Captain also in the Medical Corps is in the South Pacific and Major Howard B. Dillman of Flora is serving with the Army Medical Corps in Texas.

COOK COUNTY

The following promotions have just been announced, Milton William Eisenstein, Benjamin Boshes of Chicago and Ralph Homer Fouser of Oak Park have been promoted from Majors to Lt. Colonels.

Word has been received that Captain Bernard J. Weiberg is in Germany and Captains Paolo Ravenna, Norman Leshin, Herbert Binswanger, Lawrence L. Breslow and Ben G. Fishkin are in France. All are from Chicago.

Major A. A. Freedman of Chicago has sent the following V-mail to the Illinois Medical Journal.

"Will you kindly send future copies of the Journal to the address given below? This will facilitate delivery.

"Contact to things back home in the medical field is maintained thru the medium of the Journal. I receive each copy knowing that its reading will bring me much pleasure.

"I had the good fortune to "bump into" my brother, Capt. Bernard S. Freedman, M. C. here in France. We met under very peculiar circumstances, details withheld by censor's request. He is also an Illinois M.D.

"After several months at an Army Exhaustion center as neuro-psychiatric consultant, I am

back to my hospital unit as chief of the Neuropsychiatric service here.

"Thank you for noting my recent change of A.P.O."

The Chicago Tribune for November 5th carried two interesting stories concerning hospitals on Leyte Island and on the outskirts of Paris. The story of the hospital on Leyte Island concerned the strafing by Jap planes and the work done by Captain Edmund Pisarski of 3917 W. 59th Place, Chicago and Captain Roy Hohman of 7133 Yale Avenue, Chicago. The 108th Army General Hospital, now established in the outskirts of Paris, France is the story of one of the largest single hospital units of the war. Sponsored by Loyola university, the hospital's personnel consists of doctors and dentists from schools of the university, nurses from Loyola's affiliated hospitals and enlisted men, many of whom are former Loyola university students. Lt. Col. William J. Vynalek, Riverside, wrote from France that the medical unit started work at the Clinchy location September 1st with seven operating tables in use day and night.

Governor Green and high ranking army and navy officers and prominent doctors officially dedicated the Veteran's Rehabilitation Center, 2449 Washington Boulevard, on November 3rd. This is a state institution for the treatment of World War II veterans suffering from nervous disabilities. The center, a project of the governor's committee on veterans' rehabilitation and employment, is operated by the Chicago Community clinic of the Illinois department of public welfare. It will provide diagnosis and treatment for any service man suffering from nervous disorders and will aid in the reemployment of the veteran at the conclusion of the treatments.

The American 27th Evacuation Hospital in southern France was activated at the University of Illinois, Chicago in October 1942 and has followed the army through maneuvers in Tennessee and West Virginia, through the fierce Italian campaigns between Cassino and Pisa. The commanding officer is Col. Charles B. Puestow of Highland Park, formerly professor of Surgery at the University of Illinois College of Medicine. The hospital's medical and nursing staff was recruited from the university and men and women from Chicago, Peoria, Kankakee, Ottawa, Effingham, Champaign and other Illinois cities and towns make up the bulk of the roster.

DE KALB COUNTY

The Secretary of De Kalb County Medical Society reports the following members in the armed forces: Lt. Paul Bergstrom, U. S. Navy; Captain Paul W. Carney, Army Air Corps in France; Captain John F. Eggers; Lt. Commander Carl E. Clark, Great Lakes Naval Station; Captain Bernard F. Howland, now in France; Lt. Robert S. Keller; Lt. Edward W. Levey; Major Ralph G. McAllister, now in Italy; Lt. Commander Caryl L. Nelson, U. S. Navy; Lt. Solomon Scholnik; Lt. Commander Howard E. Spafford with the Seabees in Alaska and Aleutians; Capt. Grant Suttie now in foreign service; Major E. W. Telford, stationed in France.

Mrs. Roland O. Sala of Rock Island whose husband Commander Sala, former Rock Island physician, was head surgeon on board the aircraft carrier U. S. S. Princeton, sunk October 25th after a clash with the Jap fleet near the Philippines, has received a message from her husband that he was safe on a destroyer with no permanent injuries. He reported that he had managed to save his pocketbook, but with the exception of the clothes he was wearing, lost all his equipment.

GENERAL

ADAMS COUNTY

John G. Franken of Chandlerville was recently made a member of the Fifty Year Club of the Illinois State Medical Society. Dr. Franken was born in Hanover, Germany, on September 3, 1863. In the fall of 1880, he came to the United States to Chandlerville. He attended college at Valparaiso, Indiana, learning the English language and prepared himself for the teaching profession. He taught in the county schools several years, and then entered the Medical Department of the University of Illinois, and the old P & S at Chicago, graduating therefrom in 1895. Since that time he has been located in Chandlerville as a physician and surgeon. Dr. Walter Stevenson of Quincy, Councilor of the Sixth District, presented the certificate of membership in the Fifty Year Club to Dr. Franken and also gave a congratulatory talk. (Since this news item was received, word has come of Dr. Franken's death which occurred on November 26.)

The Adams County Medical Society has had some very interesting presentations at its monthly meetings. Willard O. Thompson of Chicago was guest speaker at the October meeting, his subject being "Recent Advances in Endocrinology". Percy E. Hopkins of Chicago spoke at the November meeting, his subject being "Surgery of the Gall Bladder and Biliary Tract."

BOND COUNTY

H. D. Cartmell of Greenville has recently

moved to Chicago and is connected with the Lumberman's Insurance Company of Chicago.

W. L. Hall of Greenville has recently undergone a very serious operation for ear trouble and has just returned to his practice.

Members of Bond County Medical Society are attending meetings of the neighboring county medical societies as their group is too small to have any major programs.

CLAY COUNTY

Members of the Clay County Medical Society met at the home of Dr. Curtis Henderson, Clay City on the evening of November 8th.

N. W. Bowman of Flora has gone to California for a rest and visit.

CLINTON COUNTY

Members of Clinton County Medical Society met at the hospital in Breese at 12:30 P. M. on November 7th. Ten members out of a total membership of twelve in the county were present. After a fine dinner served by the sisters at the hospital, the scientific program was presented by C. Malone Stroud of St. Louis talking on "Allergy" and M. F. Arbuckle of St. Louis who discussed the "Close Relationship of Allergy and Sinus Trouble." A general discussion followed.

The Clinton County Medical Society holds ten meetings during the year. The average attendance during the past year has been ten, out of a resident membership of twelve. We ask if any other county in the state can equal that record, and especially any other county in the seventh district. The Society has three members in the armed forces, all are in foreign service.

COOK COUNTY

There are approximately 65 members of the South Chicago Branch of the Chicago Medical Society now in the armed forces.

The first meeting of the year of the South Chicago Branch was held at the Jackson Park Hospital, October 24 when a Symposium on Penicillin was presented by Ralph Dolkart, Assistant in Medicine at Northwestern University School of Medicine and John T. Reynolds, Assistant Professor of Surgery, University of Illinois College of Medicine. Fifty members attended the meeting. The November 28th meeting was held at the South Shore Hospital and the Annual Stag Party was held at the Swedish Club on December 6th. The program was of a military nature, sponsored by Colonel John Hall, Commanding Officer of Gardiner General Hospital.

Isaac A. Abt, 77, is back in full harness for his 54th year in the practice of pediatrics at 104 South Michigan Avenue, Chicago. Dr. Abt had largely given up practice when his son, Arthur F. Abt, went to the Navy shortly after Pearl Harbor.

James H. Hutton, Past-President of the Illinois State Medical Society has been invited to talk on "Your Glands, and What They Do To You" before the Detroit Town Hall in Detroit, Michigan, February 21st at 11:00 A. M. The policy of the Detroit Town Hall is to bring each season, twenty outstanding speakers to discuss subjects of popular interest. Dr. Hutton will be the only representative of medicine to appear this season.

CRAWFORD COUNTY

J. M. Mitchell of Oblong, 90 years of age and still engaged in the practice of medicine, was honored in October by the Crawford County Medical Society. A dinner was held and he was presented with a leather billfold by L. P. Sloan on behalf of the Society. H. T. Cole of Urbana was the speaker, discussing the subject "Tuberculosis in Its Various Phases." C. E. Wilkinson of Danville, Councilor of the 8th district, gave a report on the activities of the society.

DE WITT COUNTY

F. M. Blome of Kenney has returned to his practice after an extended visit with his son and family in Michigan.

Extensive repairs and changes are being made in the building of John Warner Hospital, Clinton.

Only one of DeWitt County physicians in service has been home on leave in the past six months.

The DeWitt County Tuberculosis Association assisted by members of the DeWitt County Medical Society have just completed a skin test and x-ray examination of the members of the senior classes in the six high schools and the teachers of the public schools of the county. No active cases were found in the campaign.

DU PAGE COUNTY

Fred M. Drennan addressed the DuPage County Medical Society at a meeting at the Elmhurst Hospital, Elmhurst on October 25th. He talked on "The Diagnosis and Treatment of the Usual Obstructions of the Esophagus." He showed many interesting films and demonstrated the use of esophageal dilators on several of his own patients whom he had arranged to have present. The program was very instructive and interesting to the members and guests present.

Martin F. Heidgen, former Superintendent of Elmhurst Community Hospital, Elmhurst is now back on duty as Superintendent after receiving a medical discharge from the USA Medical Corps. He was in the Southwest Pacific with the West Suburban Hospital Unit for about two years.

GREENE COUNTY

William H. Garrison of White Hall who has been for many years Secretary of the Greene County Medical Society is the oldest physician in active practice in Greene County.

LAKE COUNTY

The Lake County Medical Society and the Illinois Trudeau Society held a joint meeting on November 14 at the Lake County Tuberculosis Sanatorium, Waukegan. The Lake County Tuberculosis Sanatorium Board and members of the Sanatorium Staff were hosts to the two organizations. At the business meeting of the Trudeau Society, Dr. D. F. Loewen, Decatur, presiding, officers for 1945 were elected as follows: President, W. J. Bryan, Rockford; President-Elect, D. R. Loewen, Decatur; Vice-President, C. K. Petter, Waukegan; Secretary-Treasurer, L. L. Collins, Ottawa; Executive Committee, K. G. Bulley, Aurora and E. T. McEnery, Chicago. The Society endorsed the intent and desire of the Lake County Tuberculosis Association to appeal for greater Christmas Seal contributions so that the Association might purchase a Mobile Chest X-Ray Unit.

Memorial services for the late Frederick Atwood Besley of Waukegan who at the time of his death last August 16 was secretary of the American College of Surgeons were held at Memorial Hall of the College on November 19. In addition to being a founder-fellow of the American College of Surgeons which he previously headed as president, Dr. Besley was professor of surgery at Northwestern University Medical School. He was a past president of both the Chicago Surgical Society and the Lake County Medical Society.

MADISON COUNTY

Maurice R. Williamson of Alton has been elected a trustee of the Inter-State Post-Graduate Assembly. He has been head of the staffs at both St. Joseph's and Alton Memorial Hospitals of Alton and is a past president of Alton Medical and Madison County Medical Societies.

MC DONOUGH COUNTY

The McDonough County Medical Society at its October meeting held in Macomb elected the following officers for the coming year: President, W. W. Holland; Vice-Presidents, W. E. Carnahan and William P. Standard; Secretary-treasurer, W. M. Hartman. These doctors are all from Macomb.

Announcement has been made of the marriage on November 25th of Mr. Web Johnston of the Commercial Art Press, Monmouth, printers for the Illinois State Medical Society, to Miss Elizabeth Graham of Aurora.

At the recent meeting of the Southern Illinois Medical Society held at Murphysboro, three members of the Illinois State Medical Society who have been in practice more than 50 years, were inducted as members of the Fifty Year Club, and the presentation of the emblems and framed certificates was made by Andy Hall, Mt. Vernon, as Councilor of the 9th Councilor District, and chairman of the Fifty Year Club Committee. These physicians were Barry S. Crebs, Carmi; Charles E. Riseling, Murphysboro and William H. Smith of Benton.

Also with the approval of the Council, Dr. Frank Boyd of Paducah, Kentucky was made an honorary member of the Fifty Year Club. Dr. Boyd was born and reared at McLeansboro, Illinois, a boyhood friend of Dr. Hall, and was graduated from Rush Medical Society in 1889. A pioneer surgeon of Western Kentucky, and a past president of the Kentucky State Medical Association, a frequent attendant, and often speaker at medical meetings in Southern Illinois, Dr. Boyd has many friends especially in the Southern half of this state.

MARRIAGES

THOMAS D. DUANE, Peoria, Ill., to Dr. Julia A. McElhinney of Iowa City, Iowa, March 22.

DEATHS

JOHN WILSON ADAMS, Carrollton; University of Nashville Medical Department, Nashville, Tenn., 1898; a captain in the medical corps, U. S. Army, during World War I. Died October 18, aged 78, of coronary thrombosis.

GEORGE J. ASTE, Chicago; Chicago College of Medicine and Surgery, 1908. Physician in Chicago for nearly 40 years. Died in his home November 15th at the age of 67 years.

FRANCIS JOSEPH BROCCOLO, Cicero; Loyola University School of Medicine, 1941. Commissioned a lieutenant (jg) in the medical corps of the U. S. Naval Reserve on Jan. 26, 1942; promoted to lieutenant Oct. 1, 1942; had been awarded the Silver Star; killed in action while at sea in the South Pacific area; aged 26; presumptive date of death Oct. 13, 1943, according to the Navy Department.

JOSEPH A. FISHER, Metropolis; St. Louis University

School of Medicine, 1905. Founder of Fisher Hospital, Metropolis. Died in his home of coronary thrombosis November 1, aged 63.

MARCUS SAMUEL FLETCHER, Georgetown; University of Illinois College of Medicine, 1898. Had practiced medicine in Georgetown about 40 years. Died October 9th following a long illness, aged 75 years.

JOHN G. FRANKEN, Chandlerville; University of Illinois College of Medicine, 1895; member of "Fifty Year Club" of the Illinois State Medical Society. Died November 26th, aged 81 years.

LOUIS C. FRENCH, Chicago; Loyola University School of Medicine, 1905. Died November 20, aged 67, of a heart ailment.

FRANK N. GAGGIN, Chicago; University of Illinois College of Physicians and Surgeons, 1910. Had practiced medicine in Logan Square area for 30 years; former president of the staff at Norwegian American Hospital. Died October 27 at the age of 74.

HARRY H. HAGEY, Chicago; Northwestern University Medical School, 1898. Died in his home November 15th following a short illness. He was 72 years of age.

CECIL T. HEIDEL, Chicago; Northwestern University Medical School, 1912. Was medical director of the Infant Welfare Society of Chicago in 1924 and instructor in pediatrics at Rush Medical College from 1915-1928. Died in his home in Evanston November 13, aged 62.

ANTONIO LAGORIO, Chicago; Rush Medical College, 1879. Director of Chicago Pasteur Institute which he founded 55 years ago; in 1922 was awarded the order of the grand knight of the Crown of Italy by King Victor of Italy in recognition of his services to humanity; had also received the Italian Cross of Chévalier and the silver medal of the Italian Red Cross. Died November 24th following an illness of a week at the age of 87.

JOHN LEEMING, Chicago; Royal College of Physicians and Surgeons, London, 1886. Professor of Materia medica for 10 years at Northwestern University and professor of medical jurisprudence at the Chicago Kent College of Law; was vice president of the American Medical Association in 1918. Had practiced medicine in Chicago for 60 years. Died November 4th, aged 85, in the Illinois Central Hospital.

JOSEPH M. LINDENBAUM, Chicago; Rush Medical College, 1923. South side physician for 20 years. Died in October, 1944, at the age of 46.

LUDWIG M. LOEB, Chicago; Rush Medical College, 1900; post-graduate work in Vienna. Assistant professor of medicine, Rush Medical College, 1906-1934. Died November 6, aged 66.

RALPH GARFIELD MILLS, Decatur; Northwestern University Medical School, 1907. Aided in building the Kennedy Hospital, Kangkai, Korea, of which he was the head from 1908 to 1912; served as head of the department of pathology in Peking Union Medical College and as instructor in pathology at Johns Hopkins University; formerly professor and head of the department of pathology at the University of Colorado School of Medicine, Denver. Died October 17, aged 63.

EDWARD C. MORTON, Chicago; Chicago Medical College, 1888; Chicago physician for 56 years. Was major in World War I, and served with the army of occupation as a member of the 5th division, 7th engineers. Died November 25th, aged 77, in Hines Hospital.

JEROME DANIEL SOLOMON, Chicago; University of Illinois College of Medicine, 1941; commissioned a first lieutenant in the medical reserve corps of the U. S. Army on June 6, 1941; began active duty Sept. 21, 1942; later promoted to captain. Died in the southwest Pacific area September 16, aged 28, of tsutsugamushi fever and malaria.

SAMUEL SUCHERMAN, Chicago; Chicago College of Medicine and Surgery, 1915. Had practiced medicine in Chicago for 30 years spending 27 years with the Chicago health department and a few years as a county health officer. Died November 8th, aged 79.

FREDERICK G. WHAMOND, Chicago; George Washington University Medical School, Washington, D. C., 1908. Was medical examiner for the Order of Scottish Clans. Died November 12th, aged 79, of a heart attack.

FREDERICKA CAROLINE ZELLER, Peoria; Northwestern University Woman's Medical School, 1894; died in the Methodist Hospital, August 28th, aged 80, of perforated appendicitis.

REPORT THE SURGICAL CURE OF A RARE BLOOD DISEASE

The surgical cure of a blood disease which while rare may, as a result of war wounds, be encountered more frequently, is reported in *The Journal of the American Medical Association* for November 18 by Major Sidney Lipton and Captain Harold Miller, Medical Corps, A.U.S. They say that thus far only two other cases have been reported of surgical cure of Streptococcus viridans septicemia (infection of the blood with a virulent strain of streptococci) by means of excision of the infected arteriovenous aneurysm (a sac formed on a bulge of the walls of arteries and veins and filled with blood).

There has been a gradual and noticeable increase in morbidity of tuberculosis in the aged. Arthur Rest, M.D., Amer. Rev. of Tbc., March, 1942.

P. R. N.

The Jocular Jingles of C. G. F.
by
Charles G. Farnum M. D.
Peoria, Ill.

SOPHISTES THE SEER, MEDITATES

Sophistes, the Seer, sitteth by his hearth-stone and meditateth upon the Christmas time and the Christmas spirit and what it commemorateth.

He visualizeth that far off divine event that brought into a brutish and selfish world wholly new principles and wholly new thinking. Peace on Earth was something new in an age of warfare and strife. Good Will to Men was unknown in a time when might was right. Do Unto Others As Ye Would That They Should Do Unto You was an unheard-of Philosophy.

Small wonder that those in authority cast in their minds what manner of Man this was who spake thus and that they kindled their wrath against Him. Here were teachings that struck at the very foundations of their authority. Small wonder that, as the fame of Him went forth and His following waxed strong and they took heed thereof, that they were filled with wrath and having taken council together were of one mind that to stop the teaching they must crucify the Teacher.

His mind followeth down through the ages when His followers, that they might have fellowship together, met in by-ways or perforce burrowed in the ground as the rodents that they might escape persecution or death from them that had dominion over them.

He thinketh with admiration of those intrepid souls who taught and preached and wrote, hunted and persecuted, undaunted and unafraid. He thinketh of the countless saints and martyrs who gave their all that they might bring light to them that sit in darkness.

He meditateth on the times in the darkened ages when the light of His teaching burned low and the world seemed to have reverted to barbarism and savagery. But even so the Light went not wholly out. And he smiled at the ultimate futility of the efforts of the hordes of darkness and iniquity to quench the light of His teaching.

His meditation bringeth him to the present day and with sadness in his heart he considereth those countries where His teachings have been cast out, where His followers have been oppressed and where His institutions have been destroyed by a preverse generation which ploweth iniquity and soweth wickedness and shall reap whereof they sow. He contemplateth the avalanche of rancor and hate and the deluge of bloodshed and slaughter that cometh therefrom and seemeth to submerge a goodly portion of the world into a state of bestiality where it walloweth in the mire of lust and corruption and walketh in darkness knowing not whither it goeth.

With anguish in his soul he thinketh of warfare, that grim and heartless destroyer of youth, from which no glory but only sorrow and tribulation and as much of loss to the conqueror as to the vanquished. Yet he findeth some comfort forasmuch as "every work that is corruptible shall fail in the end and the worker thereof shall go with it."

He then considereth his own land where the fire of His teaching burneth bright and the day of His nativity in the one day of universal gladness. With the precepts of the Great Teacher in its mind mankind shaketh off its feet of clay and trancendeth to a plane of Love Thy Neighbor As Thyself. It singeth Peace on Earth, Good Will To Men from the depths of its soul. It gathereth joy and comfort and peace from the giving of gifts to family, to friends and to the less-fortunate ones. It shouteth "Merry Christmas" to all and earnestly prayeth that "of His Kingdom there shall be no end." It awakeneth spiritually and devoutly accepteth the age-old admonition, "love your enemies, do good to them that hate you and pray for them that despitefully use you and persecute you." It reaffirmeth its ancient faith and reasserteth its ancient beliefs and exalteth itself thereby.

Sophistes, the Seer, gazeth at the dying embers on his hearth-stone and from his soul goeth forth a prayer of thankfulness to Him and His teachings from which cometh all things good.

P.R.N. and its scrivener C.G.F., together with Professor Paresis and Sophistes the Seer, extend to each one of you the heartiest of Christmas Greetings.

Both today and throughout all the days to be
May the Spirit of Christmas abide with thee.

Less than a generation ago tuberculosis held uncontested leadership among the causes of death; today, its virtual eradication is in sight. It is no longer a fantastic dream for those of us who have been active since the initial stages of the campaign against tuberculosis in America to expect to witness the final stages as well. Louis I. Dublin.

MAIN ATTRACTION

An old lady, who was about to die, told her niece to bury her in her black silk dress, but to cut the back out and make herself a dress.

"Oh, Aunt Mary," said the niece, "I don't want to do that. When you and Uncle Charlie walk up the golden stairs, I don't want people to see you without any back in your dress."

To which the old lady replied: "They won't be looking at me. I buried your Uncle Charlie without his pants."

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[1]Fellows, E. J.: J. Pharm. & Exper. Ther., 60:178, 183, 1937.
[2]Stevens, M. E. et al: Canad. Med. Assn. J., 48:124, 1943.

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